Kevin Mooney
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VIA ELECTRONIC MAIL

January 26, 2022

John Hopkins
Remedial Project Manager
Land and Chemicals Division
USEPA Region III
1650 Arch Street (3LC10)
Philadelphia, PA 19103

Subject: **Semi-Annual Project Progress Report: July – December 2021**
RCRA Corrective Action Permit MDD046279311
Former Appliance Park East Facility
Columbia, Maryland

Dear Mr. Hopkins:

Please find attached the Semi-Annual Project Progress Report for the former Appliance Park East facility in Columbia, Maryland. This report covers the period from July 1 to December 31, 2021 and is submitted by the General Electric Company (GE) pursuant to Condition II.C of the above-referenced permit, as modified by the United States Environmental Protection Agency (EPA).

As required by Condition I.B.9 of the above-referenced permit, I certify under penalty of law that the enclosed report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please contact me or Belssi Chang Lee of Tetra Tech at (410) 990-4607 if you have any questions regarding the attached report.

Sincerely,

Kevin Mooney
Senior Project Manager
GE Global Operations - Environment, Health & Safety

Attachment

cc: Belssi Chang Lee, Tetra Tech (via email)
Ed Hammerberg, MDE (via email)
Curt Lebak, RREEF (via email)
Michael Ready, RREEF (via email)
Bill Rowe, Howard Hughes Corporation (via email)

SEMI-ANNUAL PROJECT PROGRESS REPORT

RCRA CORRECTIVE ACTION PERMIT (PERMIT)

Permittee:	General Electric Company (GE)
Permit Number:	MDD046279311
Prepared for	GE Global Operations – Environmental Remediation 1 Plastics Avenue Pittsfield, Massachusetts 01201
Prepared By:	Tetra Tech, Inc. (Tetra Tech) 980 Awald Road, Suite 302 Annapolis, Maryland 21403
Date:	January 27, 2022
Report Period:	July 1, 2021 to December 31, 2021
Copies:	Maryland Department of the Environment (MDE) RREEF Engineering The Howard Hughes Corporation

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1. Progress Made This Period

Volatile Organic Compounds (VOCs) in Soil and Groundwater Beneath and Around the Former Manufacturing Building - RCRA Facility Investigation (RFI) Unit 2

The Parcel A-10 pump-and-treat system was operational over the last six months except for the period between August 20 and October 18, 2021 due to the system's computer failure as noted in the monthly monitoring reports submitted to the United States Environmental Protection Agency (EPA) (i.e., July through December 2021). The system's computer with control and monitoring programs were replaced and upgraded during the first half of October 2021 and the system resumed normal operation during the week of October 18, 2021. Attachment 1 includes summary tables and figures showing the site plan and performance monitoring results for the pump-and-treat system.

A groundwater monitoring event was conducted in November-December 2021 in accordance with the approved SAP dated May 4, 2011; the report (Tetra Tech, 2021) was previously submitted to EPA. Attachment 1 includes a summary of the results including groundwater elevation data, groundwater elevation contour maps for the saprolite and bedrock units, and summary of analytical results. The groundwater samples were collected using passive diffusion bags which were deployed on November 19, 2021 and retrieved on December 3, 2021. The samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260. The

groundwater analytical results are summarized in Table 2; historical TCE analytical results are presented in Table 3.

Figures 9 and 10 illustrate the change in TCE concentrations since June 2000 at wells located within the plume core and at wells located at the plume toe and cross-gradient of the plume, respectively[i]. The groundwater elevation and sample results from the November-December 2021 sampling event show that the hydraulic containment system continues to operate as intended. Specifically, VOC-impacted groundwater continues to be contained on Parcel A-10.

Warehouse Building Oil/Water Separator and Acid Neutralization Units - RFI Unit 6

The most recent 5-year monitoring event under the EPA-approved August 19, 2002 SAP was performed on November 17, 2017 (the prior 5-year monitoring event was conducted on November 29, 2012). Groundwater samples were collected from monitoring wells 6MW-1, 6MW-2, 6MW-3, and OBG-65. The groundwater monitoring results were presented in the report submitted to EPA on December 11, 2017 (Tetra Tech, 2017). Attachment 2 includes a summary of the groundwater monitoring results including groundwater levels and the respective groundwater elevations (Table 1) and summary of analytical results (Table 2). VOCs were not detected in any of the groundwater samples except for 6MW-2, which is located at the former oil/water separator under the building. The groundwater elevation data and sample results show that the extent of VOC-affected groundwater remains within the footprint of the Warehouse Building.

Other Activities Conducted Pursuant to the Permit

The current RCRA Corrective Action Permit was issued by EPA for the facility with an effective date of November 3, 2012. In accordance with Part II.B.3 of the Permit, GE submitted an Institutional Control Plan (IC Plan) dated January 24, 2013 to EPA. By its email to GE, EPA approved the IC Plan on February 5, 2013. Environmental covenants (ECs) for each of the properties subject to the IC Plan have been executed and recorded. The EC for Parcel A-8 was recorded in 2016 and the ECs for A-10 and A-15 were recorded in September 2021.

In accordance with the IC Plan, the Annual Institutional Control Monitoring Report is in Attachment 3.

2. Problems Encountered During This Period

No problems were encountered during this period.

[i] Abnormalities in the trends shown on Figure 9 (2MW-11) and Figure 10 (S-2, S-4, 2MW-4) are due to non-detect results, which are considered to be anomalous based on the analytical results from subsequent sampling events.

3. Projected Work for the Next Reporting Period

VOCs in Soil and Groundwater Beneath and Around the Former Manufacturing Building - RFI Unit 2

The Parcel A-10 pump-and-treat system is expected to operate at full-scale through the next reporting period, with the exception of the operation of recovery well B-3 (which will be sampled again in June 2022 to monitor for rebound in VOC concentrations). The next groundwater monitoring event will be conducted in May 2022 in accordance with the SAP. Groundwater monitoring will include the monitoring wells on a semi-annual, annual, and biennial sampling frequency.

Warehouse Building Oil/Water Separator and Acid Neutralization Units - RFI Unit 6

The next monitoring event is scheduled for October/November 2022.

Other Activities to Be Conducted Pursuant to the Permit

GE will submit an application in the first half of 2022 to renew existing RCRA Corrective Action Permit Number MDD046279311.

4. Changes in Personnel

There were no changes in personnel during this reporting period.

References

Tetra Tech, Inc. (Tetra Tech) 2017. *RFI Unit 6 Groundwater Monitoring Report, November 17 Sampling Event, RCRA Corrective Action Permit MDD046279311, Former Appliance Park East Facility, Columbia, Maryland*. December 11, 2017.

Tetra Tech, 2021. *Semi-Annual Groundwater Monitoring Report, December 2021 Sampling Event, RCRA Corrective Action Permit MDD046279311, CMS Units 2 and 7, Former Appliance Park East Facility, Columbia, Maryland*. December 20, 2021.

Attachments

Attachment 1: Findings Summary for Groundwater for RFI Units 2 and 7
Attachment 2: Findings Summary for Warehouse Building Oil/Water Separator and Acid Neutralization Units RFI Unit 6
Attachment 3: Annual Institutional Control Monitoring Report

ATTACHMENT 1

To Semi-Annual Project Progress Report
RCRA Corrective Action Permit
No. MDD046279311

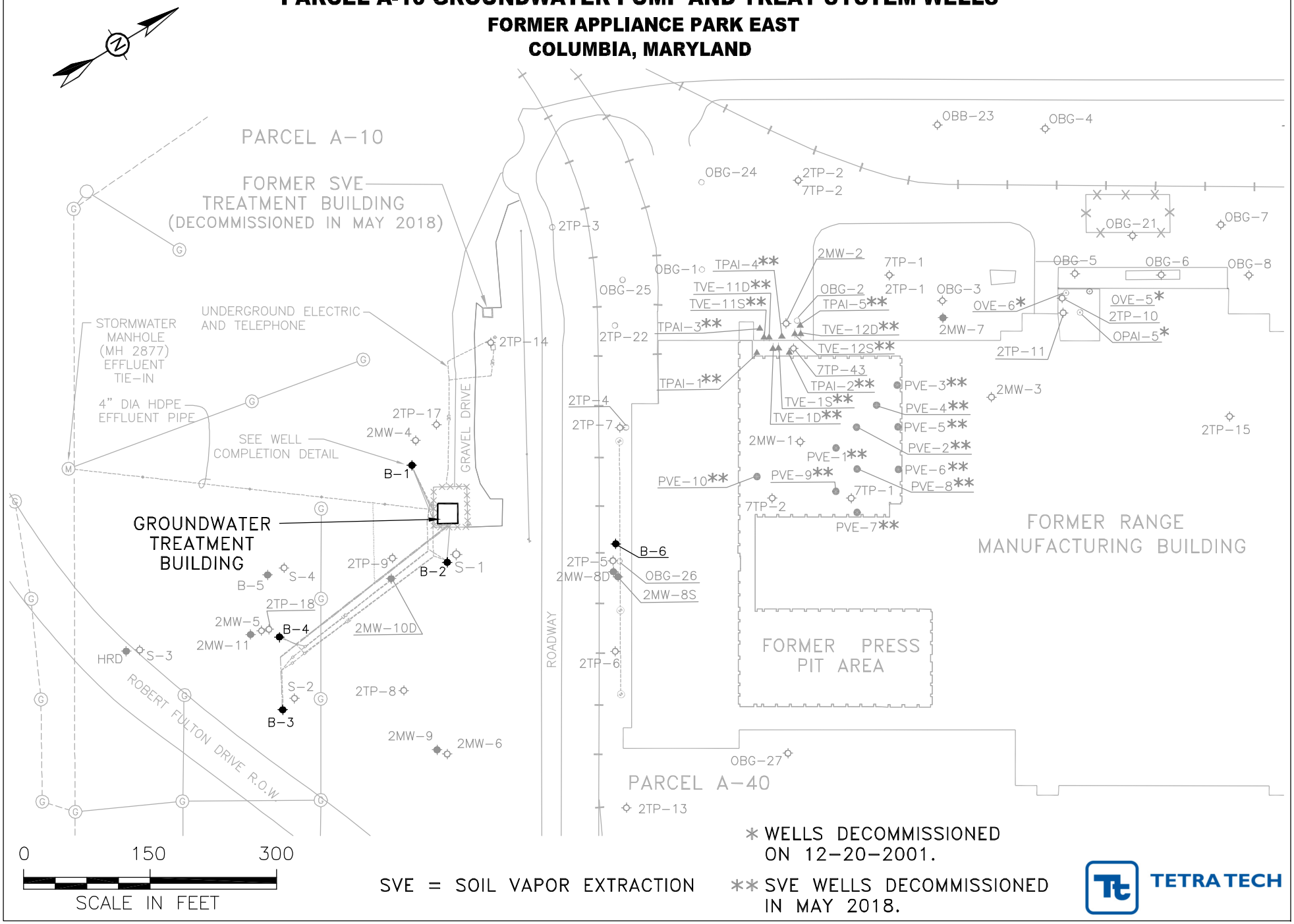
General Electric Co.
Former Appliance Park East Facility
Columbia, MD

Period July 1, 2021 to December 31, 2021

Findings Summary for Groundwater for RFI Units 2 and 7

2204275060A.DWG

FIGURE 1
PARCEL A-10 GROUNDWATER PUMP AND TREAT SYSTEM WELLS
FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND



SVE = SOIL VAPOR EXTRACTION

* WELLS DECOMMISSIONED ON 12-20-2001.

** SVE WELLS DECOMMISSIONED IN MAY 2018.

TETRA TECH

Figure 2
Groundwater Pump-and-Treat System Recovery
Former Appliance Park East Facility, Columbia, Maryland

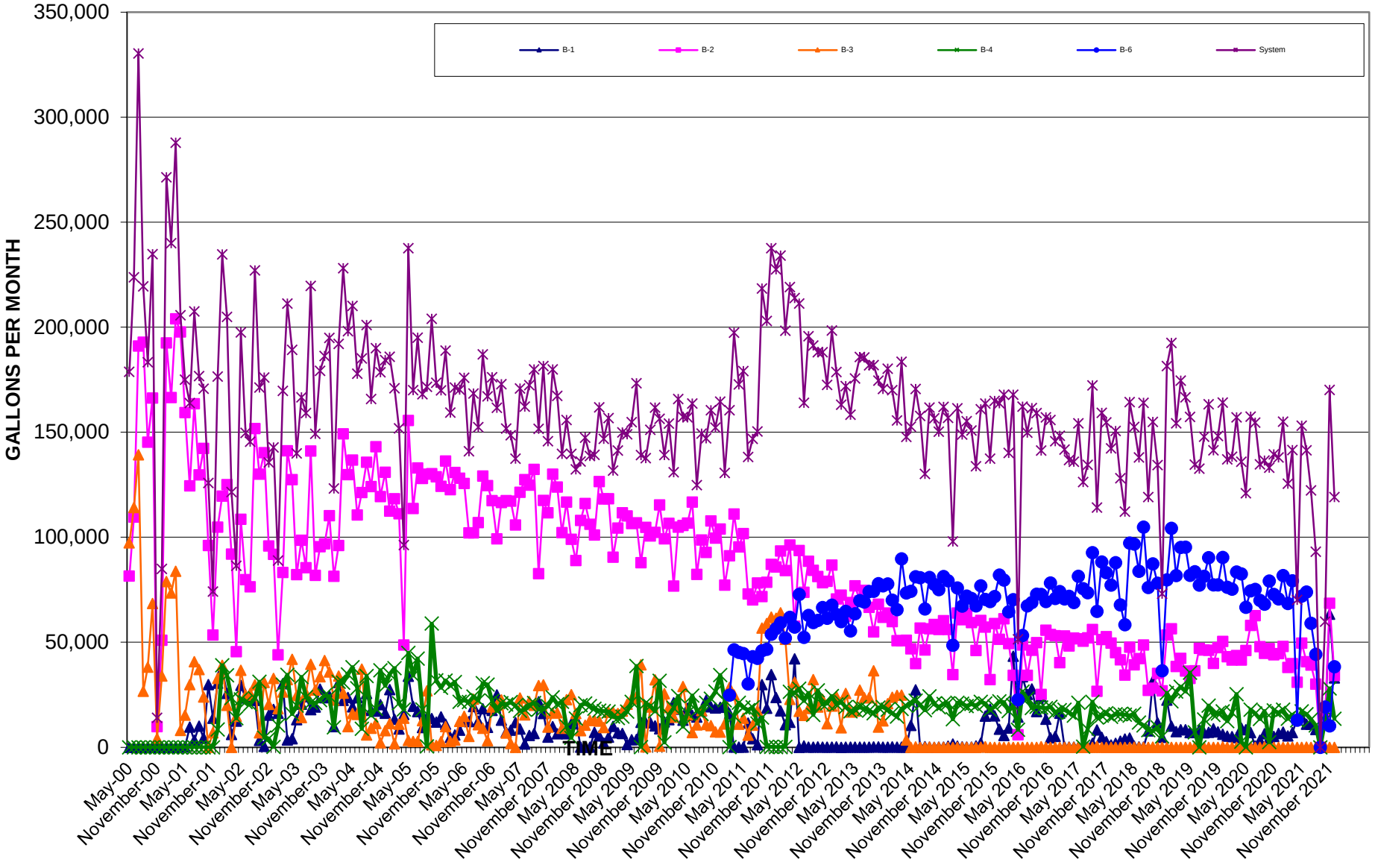


Figure 3
Groundwater Pump-and-Treat System Recovery - Trailing 12-Month Total Gallons
Former Appliance Park East Facility, Columbia, Maryland

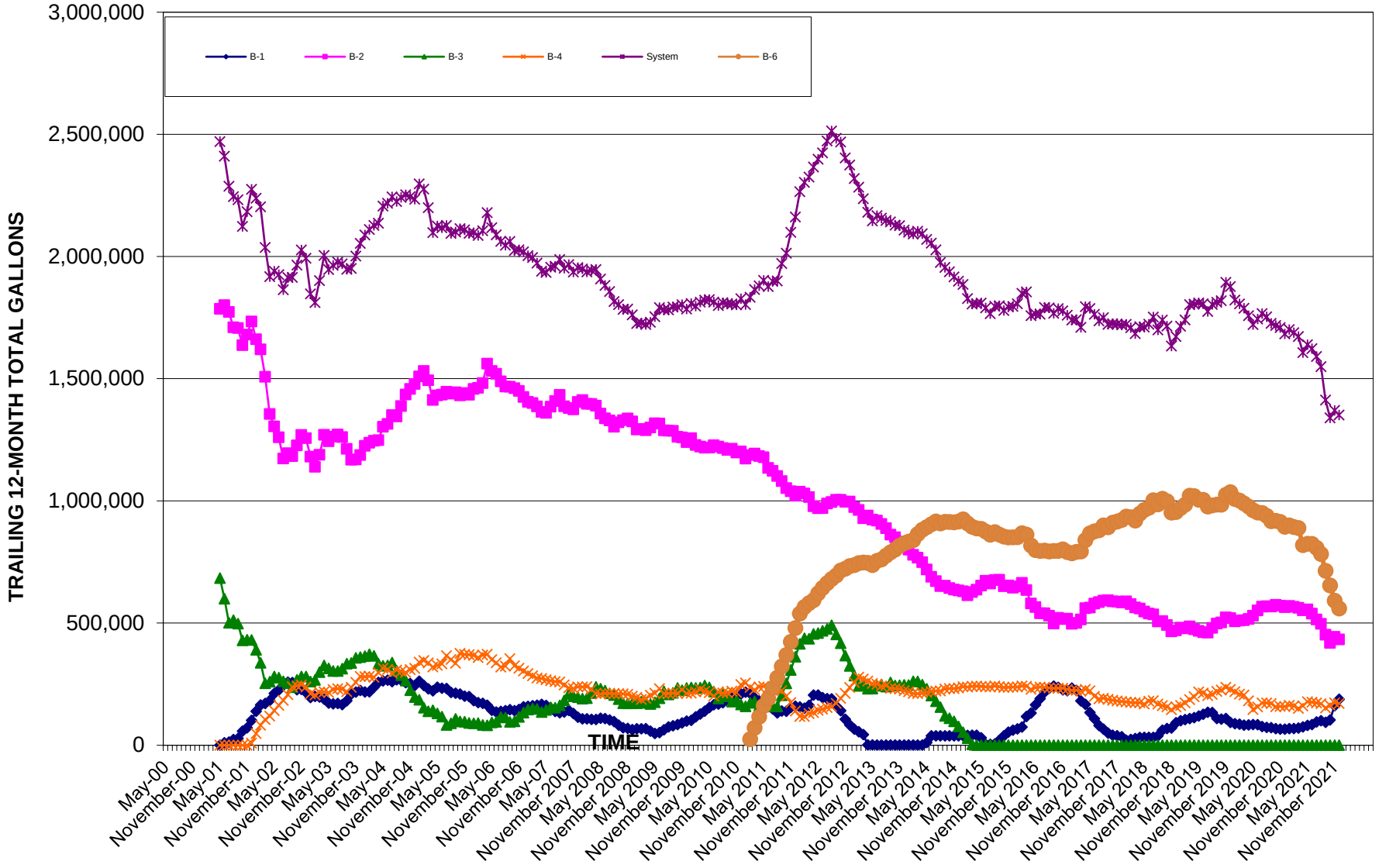
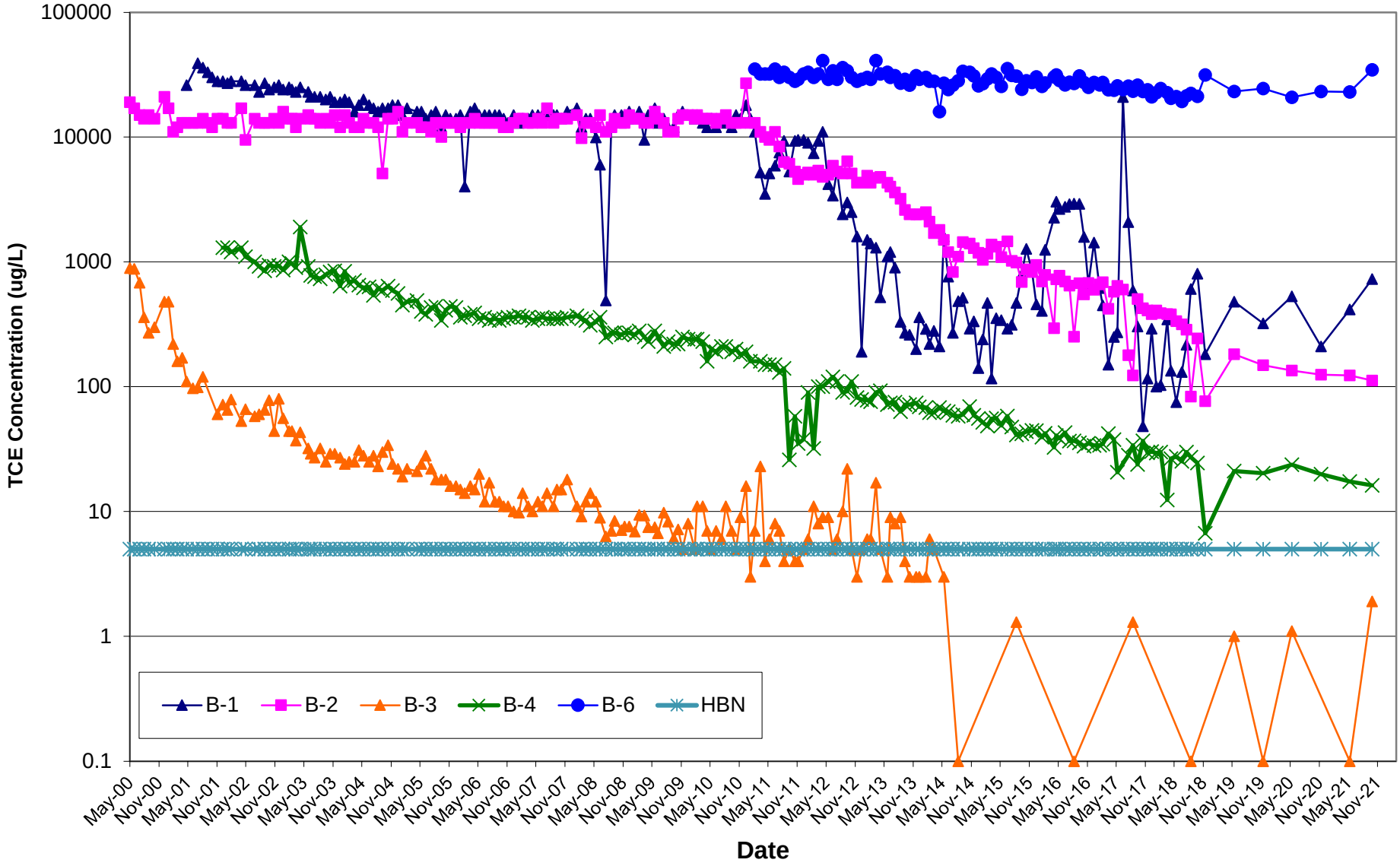


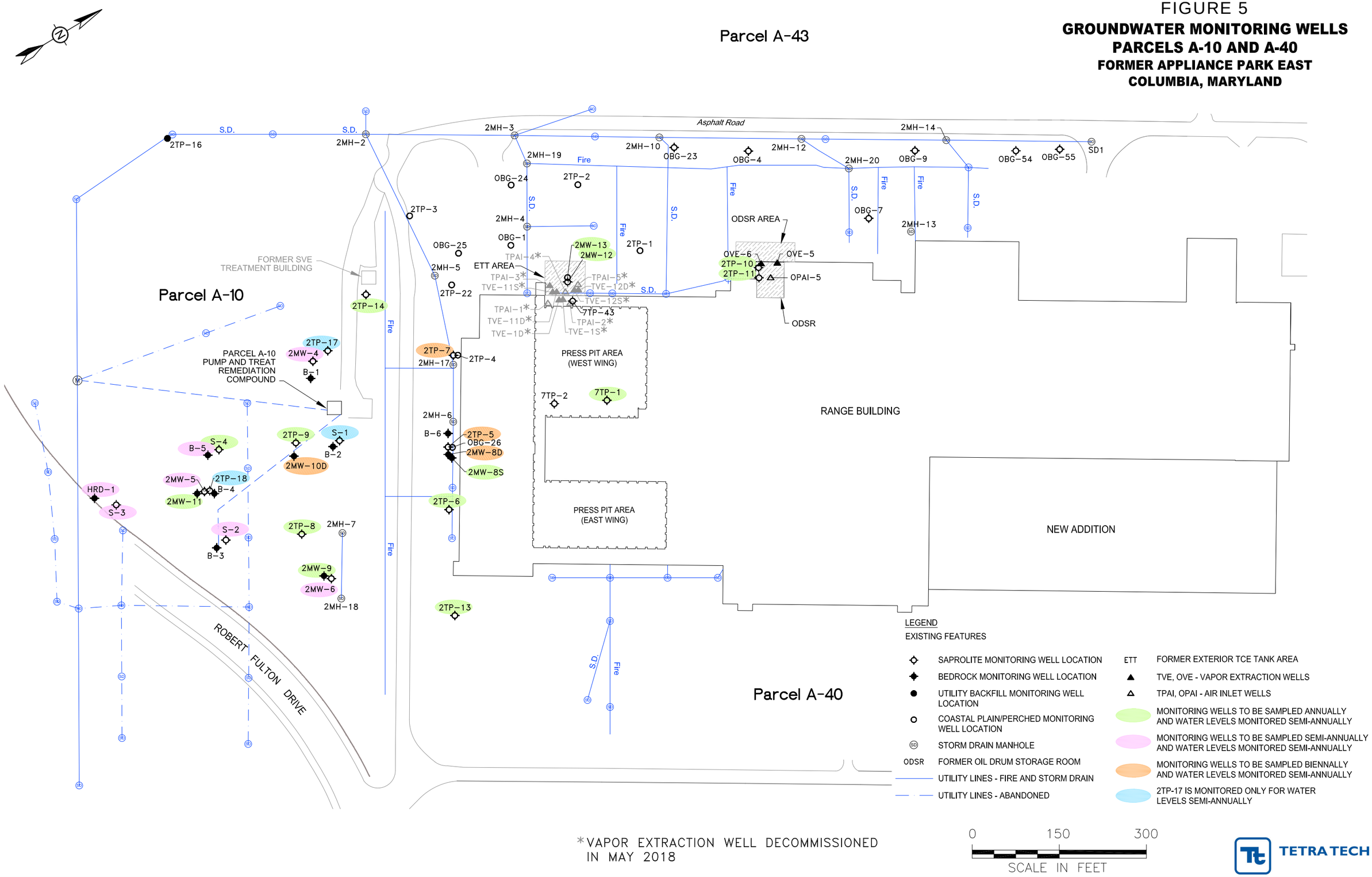
Figure 4
TCE Concentrations in Groundwater Recovery Wells
Former Appliance Park East Facility, Columbia, Maryland



HBN = Permit-Specified Health Based Number = 5 ug/L

FIGURE 5

GROUNDWATER MONITORING WELLS
PARCELS A-10 AND A-40
FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND



LEGEND

EXISTING FEATURES

- SAPROLITE MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- UTILITY BACKFILL MONITORING WELL LOCATION
- COASTAL PLAIN/PERCHED MONITORING WELL LOCATION
- STORM DRAIN MANHOLE
- ODSR — FORMER OIL DRUM STORAGE ROOM
- UTILITY LINES - FIRE AND STORM DRAIN
- UTILITY LINES - ABANDONED
- ETT — FORMER EXTERIOR TCE TANK AREA
- TVE, OVE - VAPOR EXTRACTION WELLS
- TPAI, OPAI - AIR INLET WELLS
- MONITORING WELLS TO BE SAMPLED ANNUALLY AND WATER LEVELS MONITORED SEMI-ANNUALLY
- MONITORING WELLS TO BE SAMPLED SEMI-ANNUALLY AND WATER LEVELS MONITORED SEMI-ANNUALLY
- MONITORING WELLS TO BE SAMPLED BIENNALLY AND WATER LEVELS MONITORED SEMI-ANNUALLY
- 2TP-17 IS MONITORED ONLY FOR WATER LEVELS SEMI-ANNUALLY

*VAPOR EXTRACTION WELL DECOMMISSIONED IN MAY 2018

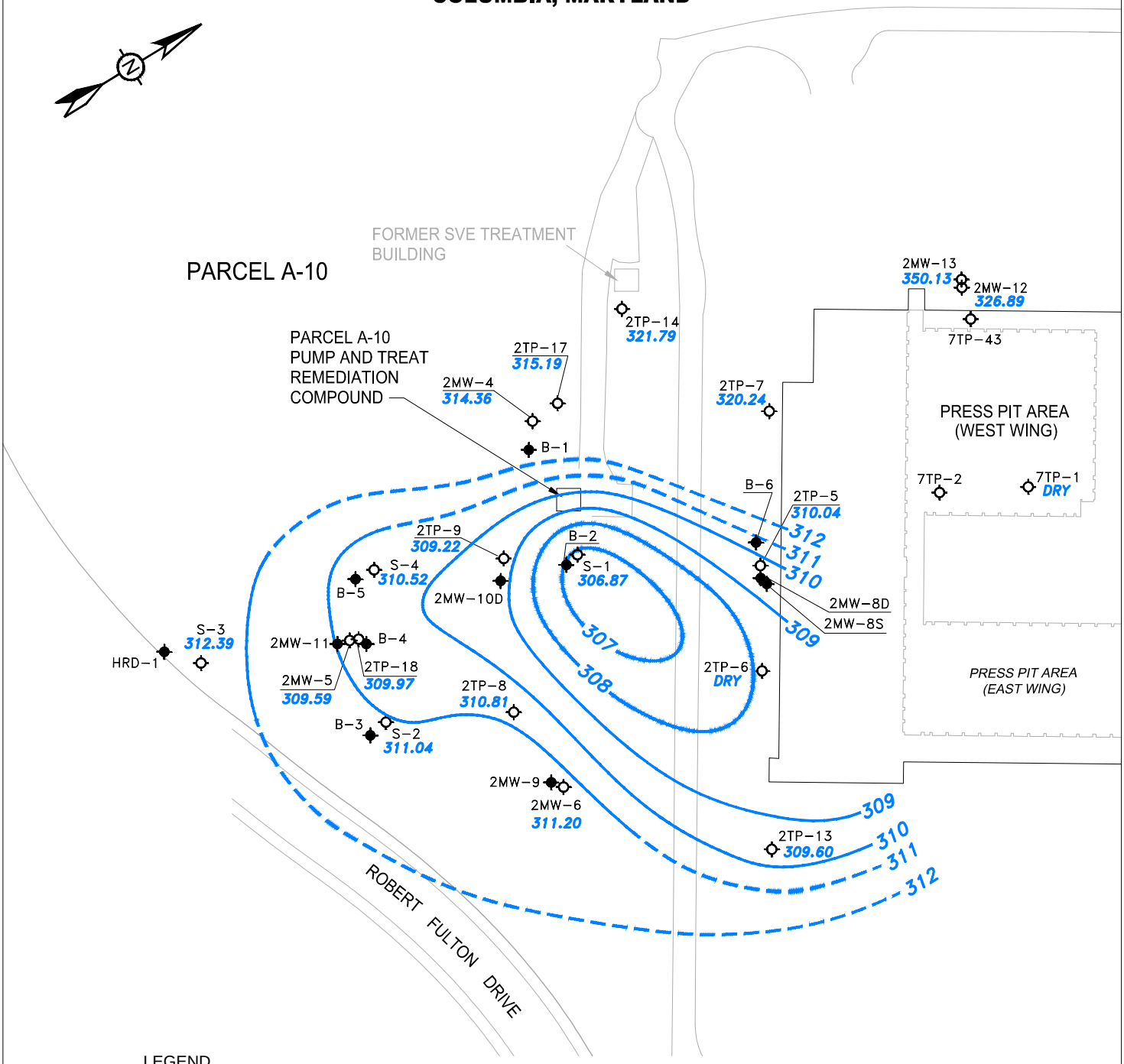
0 150 300

SCALE IN FEET

TETRA TECH

220427506BA.DWG

FIGURE 6
HYDRAULIC HEADS FOR PARCEL A-10 SAPROLITE WELLS
NOVEMBER 19, 2021
FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND



LEGEND

- SAPROLITE MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- 311.04 GROUNDWATER ELEVATION (FEET)
- — 310 — GROUNDWATER ELEVATION CONTOUR (FEET) (DASHED WHERE INFERRED)

NOTES:

1. 2MW-13 IS A COASTAL PLAIN/PERCHED GROUNDWATER MONITORING WELL.
2. GROUNDWATER ELEVATIONS FOR 2MW-5 AND 2TP-13 WERE NOT USED TO DEVELOP GROUNDWATER ELEVATION CONTOURS.

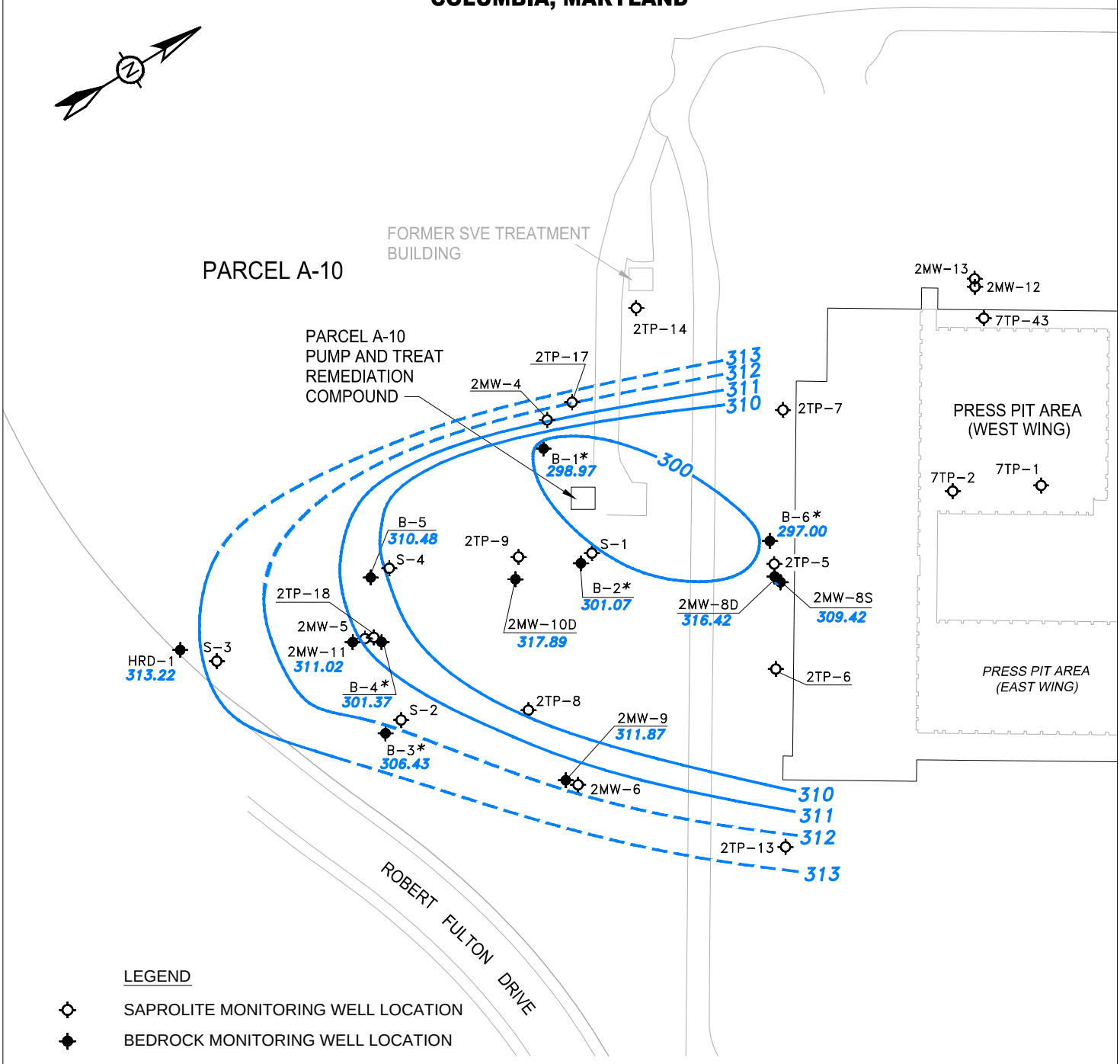
0 150 300

SCALE IN FEET

TETRA TECH

GE-00097007A.DWG

FIGURE 7
HYDRAULIC HEADS FOR PARCEL A-10 BEDROCK WELLS
NOVEMBER 19, 2021
FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND



LEGEND

- SAPROLITE MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- 311.02 — GROUNDWATER ELEVATION (FEET)
- —310— GROUNDWATER ELEVATION CONTOUR (FEET) (DASHED WHERE INFERRED)
- * — HYDRAULIC HEAD IS THE LOWER SET POINT FOR THE EXTRACTION WELLS
- NA — GROUNDWATER ELEVATION NOT AVAILABLE; SEE NOTE 3

0 150 300

SCALE IN FEET

NOTES:

1. 2MW-13 IS A COASTAL PLAIN/PERCHED GROUNDWATER MONITORING WELL.
2. GROUNDWATER ELEVATIONS FOR 2MW-8D AND 2MW-10D WERE NOT USED TO DEVELOP GROUNDWATER ELEVATION CONTOURS.
3. B-3 WAS TURNED OFF DURING THE WATER LEVEL GAUGING EVENT, AND A WATER LEVEL WAS NOT COLLECTED; THEREFORE A GROUNDWATER ELEVATION FOR B-3 IS NOT AVAILABLE.

TETRA TECH

GE-00097008A.DWG

FIGURE 8
APPROXIMATE EXTENT OF TCE IN GROUND WATER FROM DECEMBER 2021 SAMPLING EVENT
FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND

Parcel A-43

Parcel A-10

Parcel A-40

ASPHALT ROAD

ROBERT FULTON DRIVE

RANGE BUILDING

NEW ADDITION

PRESS PIT AREA (WEST WING)

PRESS PIT AREA (EAST WING)

FORMER SVE TREATMENT BUILDING

PARCEL A-10 PUMP AND TREAT REMEDIATION COMPOUND

ODSR

OBG-23
2TP-16
OBG-24
2TP-2
OBG-23
OBG-4
OBG-9
OBG-54
OBG-55
2TP-3
OBG-25
OBG-1
OBG-7
OGB-21
OGB-10
2TP-10
81,300**
OGB-5
OGB-26
OGB-8
2MW-12
117
2TP-1
OBG-3
2MW-7
2MW-13
9.0
OBG-2
2TP-11
7,500
2TP-22
7TP-43
2TP-14
3.1
29
2MW-3
2TP-15
2TP-17
2MW-4
14**
<1.0
B-1
2TP-7
617*
16,000
2TP-4
2MW-1
7TP-1
NSD
7TP-2
OBG-26
2MW-8D
15.9*
280
B-6
2TP-5
7,210*
41,000
2MW-8S
5,520
63,000
2TP-9
37.6
2,200
S-4
32.6
1,000
S-1
21,000
B-2
B-5
<1**
2MW-10D
6.6*
1.4
HRD-1
<1.0**
2.9
2MW-5
6.7**
3,300
B-4
2TP-18
<1.0
S-3
<1.0**
170
2MW-11
4.3
3,200
S-2
<1.0**
290
B-3
2TP-6
NSD
120
2TP-8
<1.0
<1.0
2MW-9
<1.0
<1.0
2MW-6
<1.0**
<1.0
2TP-13
6.6
10
OGB-27
2TP-12
DM-1

0 150 300
SCALE IN FEET

LEGEND

- SAPROLITE MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- COASTAL PLAIN/PERCHED MONITORING WELL LOCATION
- B-1 BEDROCK EXTRACTION WELL LOCATION
- OGB-27 MONITORING WELL PROPOSED FOR ABANDONMENT / NOT LOCATED
- OGB-4 MONITORING WELL ABANDONED AUGUST 2014
- 80.3 TCE CONCENTRATION (µg/L) JUNE 2021
- 2,200 TCE CONCENTRATION (µg/L) JUNE 22, 2000
- * TCE CONCENTRATION (µg/L) MAY 2020
- ** TCE CONCENTRATION (µg/L) DECEMBER 2021
- <1.0 NOT DETECTED ABOVE LIMIT OF QUANTITATION (5.0)
- NSD NOT SAMPLED - WELL WAS DRY
- ESTIMATED 5 µg/L LIMIT OF TCE IN SAPROLITE / SHALLOW BEDROCK GROUND WATER
- FRACTURE TRACE

TETRA TECH

GE-00097009A.DWG

Figure 9
TCE Concentrations within Plume Core
Former Appliance Park East Facility
Columbia, Maryland

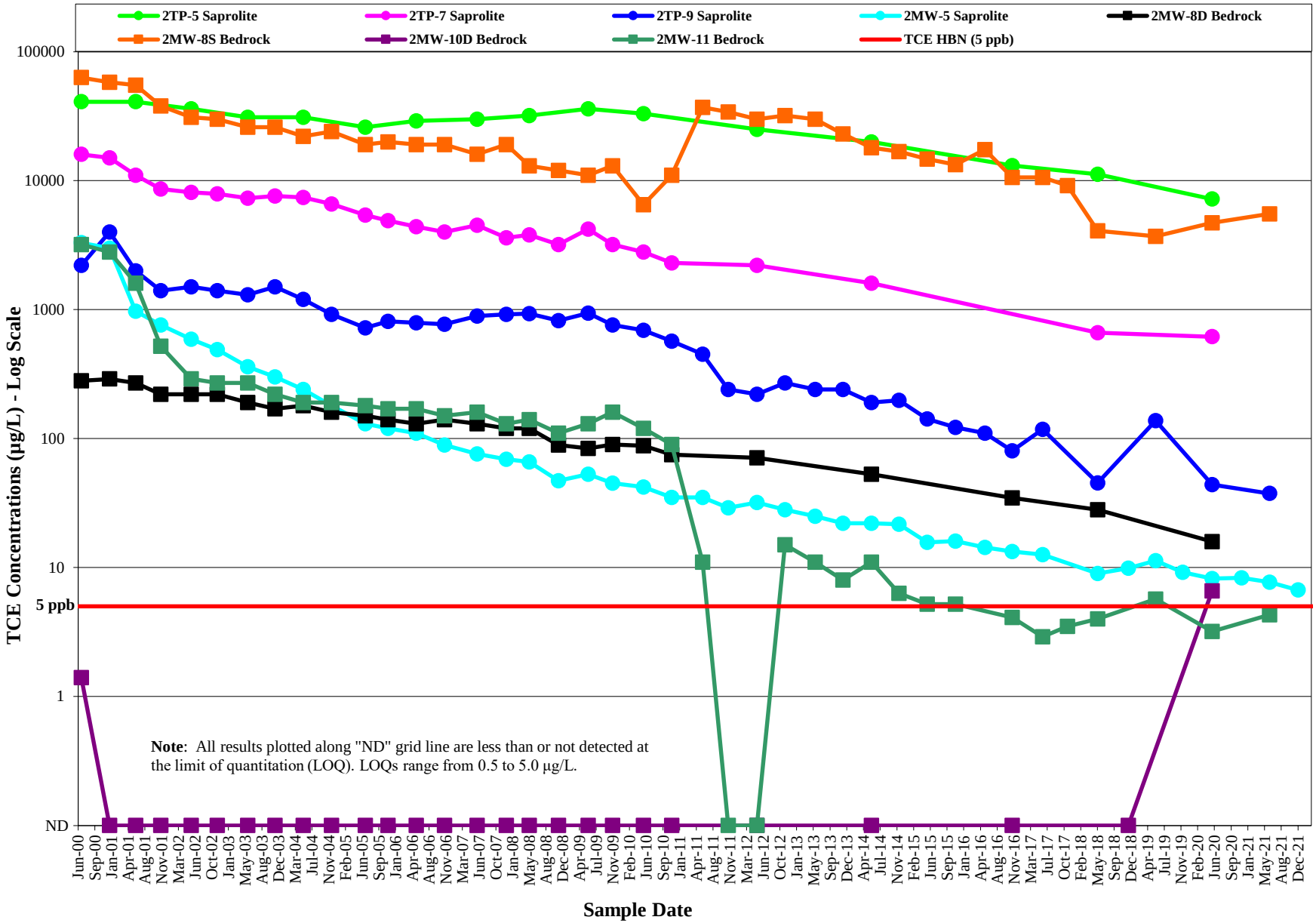


Figure 10
TCE Concentrations at Plume Toe and Cross-Gradient
Former Appliance Park East Facility
Columbia, Maryland

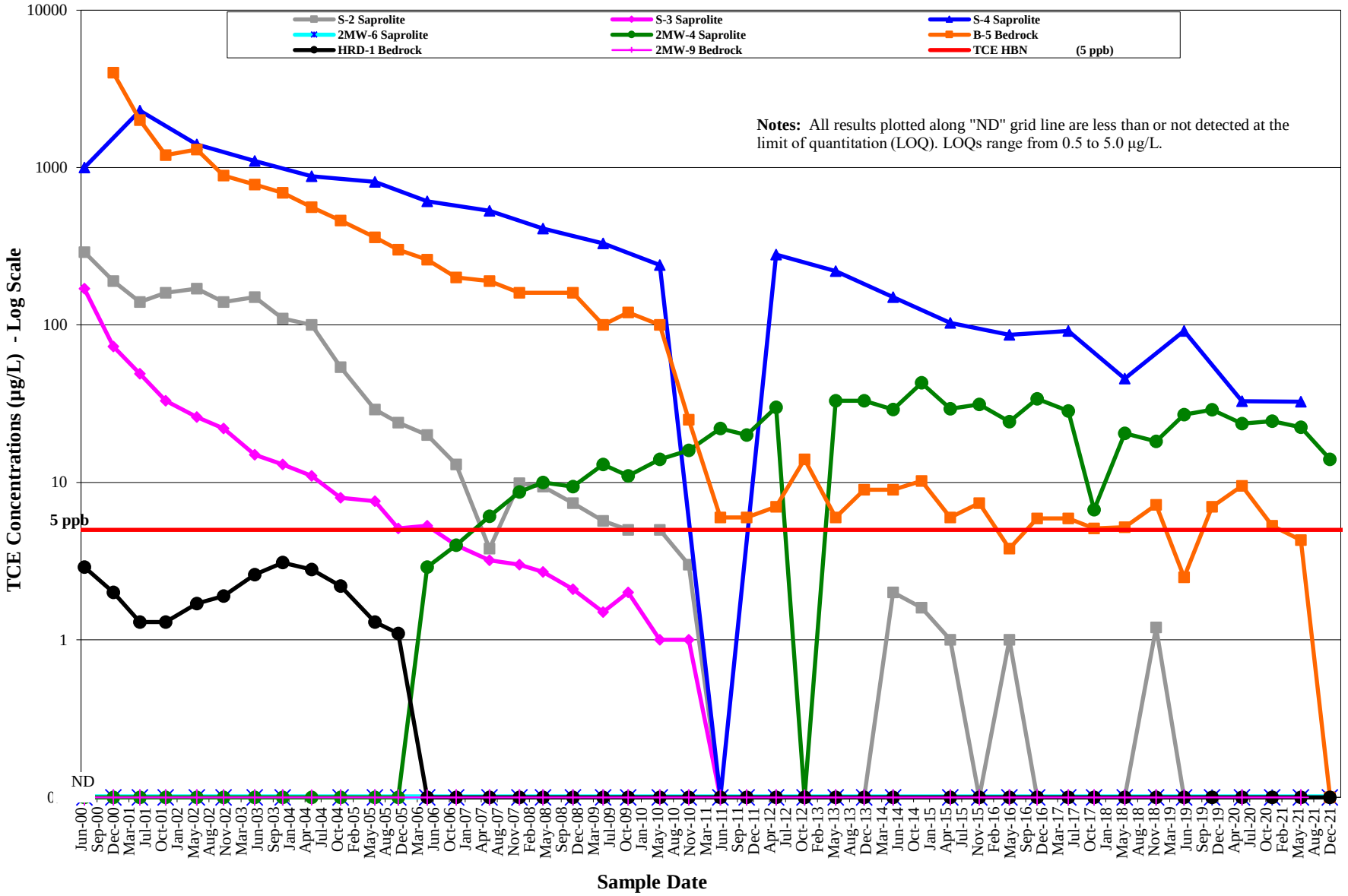


TABLE 1
Groundwater Elevations for Monitoring Wells at CMS Units 2 and 7
November 19, 2021
Former Appliance Park East Facility, Columbia, Maryland

Well ID	Interpreted Lithology	Reference Point Elevation (ft > MSL)	Well Depth (ft BGS)	Well Screen Length (ft)	Well Screen Top (ft BGS)	Well Screen Bottom (ft BGS)	Screen Top Elevation (ft > MSL)	Screen Bottom Elevation (ft > MSL)	Sampling Frequency**	Water Level Monitoring Frequency	Depth to Water on November 19, 2021 (ft BRE)	Groundwater Elevation on November 19, 2021 (ft > MSL)
SAPROLITE / WATER TABLE												
7TP-1	Saprolite	345.76	24	20	4	24	342	322	Annually	Semi-Annually	DRY	DRY
2TP-5	Saprolite	358.02	63	15	48	63	308.38	293.38	Biennially	Semi-Annually	47.98	310.04
2TP-6	Saprolite	358.79	50	15	35	50	321.41	306.41	Annually	Semi-Annually	DRY	DRY
2TP-7	Saprolite	358.76	59	15	44	59	313.16	298.16	Biennially	Semi-Annually	38.52	320.24
2TP-8	Saprolite	348.67	62	15	47	62	299.11	284.11	Annually	Semi-Annually	37.86	310.81
2TP-9	Saprolite	348.85	55	15	40	55	305.95	290.95	Annually*	Semi-Annually	39.63	309.22
2TP-10	Coastal Plain & Saprolite	358.95	23	10	13	23	345	335	Annually	Semi-Annually	18.08	340.87
2TP-11	Coastal Plain & Saprolite	357.57	30	10	20	30	338	328	Annually	Semi-Annually	18.43	339.14
2TP-13	Saprolite	362.11	59	15	44	59	315.58	300.58	Annually	Semi-Annually	52.51	309.60
2TP-14	Saprolite	348.85	48	15	33	48	314.77	299.77	Annually	Semi-Annually	27.06	321.79
2TP-17	Saprolite	349.29	47	15	32	47	314.8	299.8	None	Semi-Annually	34.1	315.19
2TP-18	Saprolite	346.42	43	15	28	43	316.02	301.02	None	Semi-Annually	36.45	309.97
2MW-4	Saprolite	348.8	46	20	26	46	320.31	300.31	Semi-Annually	Semi-Annually	34.44	314.36
2MW-5	Saprolite	346.06	68	15	53	68	290.87	275.87	Semi-Annually	Semi-Annually	36.47	309.59
2MW-6	Saprolite	350.13	44	15	29	44	318.6	303.6	Semi-Annually	Semi-Annually	38.93	311.20
2MW-12	Saprolite	353.61	36	15.0	21.0	36.0	332.57	317.57	Annually	Semi-Annually	26.72	326.89
2MW-13	Coastal Plain/Perched	353.42	11	8	3	11	350.69	342.69	Annually	Semi-Annually	3.29	350.13
S-1	Saprolite	349.94	41	30	11	41	336.9	306.9	None	Semi-Annually	43.07	306.87
S-2	Saprolite	346.89	50	30	20	50	325.06	295.06	Semi-Annually	Semi-Annually	35.85	311.04
S-3	Saprolite	347.69	50	30	20	50	325.78	295.78	Semi-Annually	Semi-Annually	35.30	312.39
S-4	Saprolite	346.14	50	30	19	49	325.23	295.23	Annually	Semi-Annually	35.62	310.52
2MW-8S	Bedrock	359.24	128	20	108	128	248.8	228.8	Annually*	Semi-Annually	49.82	309.42
2MW-9	Bedrock	349.45	93	20	73	93	274.47	254.47	Annually*	Semi-Annually	37.58	311.87
2MW-11	Bedrock	345.54	120	20	100	120	243.61	223.61	Annually*	Semi-Annually	34.52	311.02
2MW-8D	Bedrock	359.09	208	15	193	208	163.43	148.43	Biennially	Semi-Annually	42.67	316.42
2MW-10D	Bedrock	348.56	200	24	176	200	170.08	146.08	Biennially	Semi-Annually	30.67	317.89
HRD-1	Bedrock	341.11	140	20	120	140	221.11	201.11	Semi-Annually	Semi-Annually	27.89	313.22
B-5	Bedrock	345.99	140	86	54	140	290.08	204.08	Semi-Annually	Semi-Annually	35.51	310.48

NOTES:

BGS = below ground surface
ft = feet
BRE = below reference elevation
> MSL = above mean sea level

* Well sampled on an annual basis starting November 2018 per October 29, 2018 EPA approval.

** Semi-annual frequency: May/June and November/December. Annual frequency: May/June. Biennial sampling: May/June of even years starting in 2012.

The low set points for the pump-and-treat system recovery (extraction) wells are: B-1: 298.97 ft MSL; B-2: 301.07 ft MSL; B-3: 306.43 ft MSL; B-4: 301.37 ft MSL; and B-6: 297.00 ft MSL.

TABLE 2
VOC Detections for CMS Units 2 and 7 Groundwater Monitoring
December 3, 2021
Former Appliance Park East Facility, Columbia, Maryland

Well - Sample ID	Trichloroethene (ug/L)	Cis-1,2-dichloroethene (ug/L)	Trans-1,2-dichloroethene (ug/L)	1,1-Dichloroethane (ug/L)	1,1-Dichloroethene (ug/L)	Tetrachloroethene (ug/L)	Chloroform (ug/L)	1,1,2-Trichloroethane (ug/L)	Vinyl Chloride (ug/L)
Saprolite / Water Table									
7TP-1	NSD	NSD	NSD	NSD	NSD	NSD	NSD	NSD	NSD
2TP-5*	NR	NR	NR	NR	NR	NR	NR	NR	NR
2TP-6	NSD	NSD	NSD	NSD	NSD	NSD	NSD	NSD	NSD
2TP-7*	NR	NR	NR	NR	NR	NR	NR	NR	NR
2TP-8	NR	NR	NR	NR	NR	NR	NR	NR	NR
2TP-9	NR	NR	NR	NR	NR	NR	NR	NR	NR
2TP-10[CS]	**81,300**	**81.7**	**7.8**	**2.5**	**5.2**	**72.7**	**12.6**	<1.0	<1.0
2TP-11[CS]	NR	NR	NR	NR	NR	NR	NR	NR	NR
2TP-13	NR	NR	NR	NR	NR	NR	NR	NR	NR
2TP-14	NR	NR	NR	NR	NR	NR	NR	NR	NR
2MW-4	**14**	**2.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2MW-5	**6.7**	**4.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2MW-6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2MW-12	NR	NR	NR	NR	NR	NR	NR	NR	NR
2MW-13[CP]	NR	NR	NR	NR	NR	NR	NR	NR	NR
S-2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
S-3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
S-4	NR	NR	NR	NR	NR	NR	NR	NR	NR
Bedrock									
2MW-8S	NR	NR	NR	NR	NR	NR	NR	NR	NR
2MW-9	NR	NR	NR	NR	NR	NR	NR	NR	NR
2MW-11	NR	NR	NR	NR	NR	NR	NR	NR	NR
2MW-8D*	NR	NR	NR	NR	NR	NR	NR	NR	NR
2MW-10D*	NR	NR	NR	NR	NR	NR	NR	NR	NR
HRD-1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B-5	<1.0	**29.2**	**1.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Field Blank	**2.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

ug/L = Micrograms per liter

/ = Duplicate samples

NR = well not sampled - not required for this sampling event

NS = Not sampled - unable to retrieve passive bag sampler

NSD = Not sampled due to well being dry or had insufficient volume of water

MW-12, MW-13, 2TP-10, and 2TP-11 added to semi-annual sampling in June 2011

Starting in November 2009 samples analyzed using EPA Method 8260

< = result is less than or not detected at this limit of quantitation

[CS] Costal Plain & Saprolite

[CP] Coastal Plain/Perched Well

* Well on a biennial sampling frequency.

TABLE 3
Historical TCE Analytical Results for CMS Units 2 and 7 Groundwater Monitoring
Former Appliance Park East Facility, Columbia, Maryland

Well - Sample ID	Well Depth (ft BGS)	Well Screen (ft BGS)		6/22/2000		12/21/2000		6/7/2001		11/16/2001		12/1/2001		5/31/2002	11/15/2002		5/30/2003		11/21/2003	
		Top (ft BGS)	Bottom (ft BGS)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)
Saprolite / Water Table																				
7TP-1	24	4.0	24.0																	
2TP-5*	63.0	48.0	63.0	**55**	**41,000**	**55**	**NR**	**55**	**41,000**	**55**	**NR**	**55**	**NC**	**36,000**	**55**	**NR**	**55**	**31,000**	**55**	**NR**
2TP-6	50.0	35.0	50.0	46	120	51	13	51	1.1↟	51	NS	50	NC	NSD	50	1.6	50	NSD	50	<1.0
2TP-7*	59.0	44.0	59.0	**52**	**16,000**	**50**	**15,000**	**50**	**11,000**	**50**	**8,600**	**50**	**NC**	**8,100**	**50**	**7,900**	**60**	**7,300**	**60**	**7,600**
2TP-8	62.0	47.0	62.0	55	<1.0	53	<1.0	53	<1.0	53	<1.0	60	NC	<1.0	60	<1.0	60	<1.0	60	<1.0
2TP-9	55.0	40.0	55.0	48	**2,200**	50	4,000	50	2,000	50	1,400	48	NC	1,500	48	1,400	48	1,300	48	1,500
2TP-10[CS]	21.9	13.0	23.0		NC		NC	NC	NC	NC	NC		67,000	NC	NC	NC	NC	NC	NC	NC
2TP-11[CS]	30.0	19.2	30.0		NC		NC	NC	NC	NC	NC		1,500/1,200	NC	NC	NC	NC	NC	NC	NC
2TP-13	59.0	44.0	59.0	52	**10**	59	12	59	1.7↟	59	15	59	NC	8.1	59	1.8	59	1.8	59.0	4.3
2TP-14	58.0	43.0	58.0	40	**29**	40	30	40	34	40	33	44	NC	30	44	28	40	21	40	20
2MW-4	46.0	26.0	46.0	40	<1.0	44	<1.0	44	<1.0	44	<1.0	44	NC	<1.0	44	<1.0	44	<1.0	44	<1.0
2MW-5	68.0	53.0	68.0	61	**3,300**	54	3,000	54	970	54	760	54	NC	590	54	490	61	360	61	300
2MW-6	44.0	29.0	44.0	40	<1.0	44	<1.0	44	<1.0↟	44	<1.0	45	NC	<1.0	45	<1.0	45	<1.0	45	<1.0
2MW-12	34.9	19.9	34.9		NA	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2MW-13[CP]	11.0	3.0	11.0		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-2	50.0	20.0	50.0	40	290	40	190	40	140	40	160	45	NC	170	45	140	46	150	46	110
S-3	50.0	20.0	50.0	40	170	40	73	40	49	40	33	45	NC	26	45	22	46	15	46	13
S-4	50.0	20.0	50.0	40	1,000	40	NR	40	2,300	40	NR	45	NC	1,400	45	NR	45	1,100	45	NR
Bedrock																				
2MW-8S	128.0	108.0	128.0	118	63,000	91	58,000	**91**	55,000	91	**38,000**	91	NC	31,000	91	30,000	118	26,000	118	26,000
2MW-9	93.0	73.0	93.0	83	<1.0	68	<1.0	**68**	<1.0	68	<1.0	68	NC	<1.0	68	<1.0	83	<1.0	83	<1.0
2MW-11	120.0	100.0	120.0	110	3,200	79	**2,800**	**79**	**1,600**	79	520	79	NC	290	79	270	110	270	110	220
2MW-8D*	208.0	193.0	208.0	**200**	**280**	**126**	**290**	**126**	**270**	**126**	**220**	**126**	**NC**	**220**	**126**	**220**	**200**	**190**	**200**	**170**
2MW-10D*	200.0	176.0	200.0	**188**	**1.4**	**116**	**<1.0**	**116**	<1.0	**116**	**<1.0**	**116**	**NC**	**<1.0**	**116**	**<1.0**	**188**	**<1.0**	**188**	**<1.0**
HRD-1	140.0	120.0	140.0	130	2.9	85	2.0	85	1.3	85	1.3	85	NC	1.7	85	1.9	130	2.6	130.0	3.1
B-5	140.0	54.0	140.0	64	NC	90	4,000	90	2,000	90	1,200	90	NC	1,300	90	890	95	780	95	690
Field Blank	-	-	-	-	<1.0	-	<1.0	-	<1.0	-	<1.0	-	NC	NC	-	<1.0	-	<1.0	-	<1.0

TABLE 3
Historical TCE Analytical Results for CMS Units 2 and 7 Groundwater Monitoring
Former Appliance Park East Facility, Columbia, Maryland

Well - Sample ID	Well Depth (ft BGS)	Well Screen (ft BGS)		5/21/2004		11/19/2004	11/19/2004	6/24/2005	11/18/2005*	6/14/2007	12/20/2007	1/2008	5/16/08	11/20/08	5/29/09	11/3/09	5/21/10	11/19/10	6/6/11	11/18/11	5/21/12	11/16/12
		Top (ft BGS)	Bottom (ft BGS)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	Passive Bag Sample Depth (ft BMP)	TCE (ug/L)	TCE (ug/L)	TCE (ug/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)	TCE (µg/L)
Saprolite / Water Table																						
7TP-1	24	4.0	24.0							NC	NC	NC	NC	NC	NC	NC	NC	NC	NSD	NR	NSD	NR
2TP-5*	63.0	48.0	63.0	**55**	**31,000**	**55**	**NR**	**26,000**	**NR**	**30,000**	**NR**	**NC**	**32,000**	NR	**36,000**	NR	**33,000**	NR	NR	NR	**25,000**	NR
2TP-6	50.0	35.0	50.0	50	NSD	50	<1.0	<1.0	<1.0	NSD	<2.0	NC	NSD	NSD	NSD	NSD	NSD	<1.0	NSD	NR	NSD	NR
2TP-7*	59.0	44.0	59.0	**60**	**7,400**	**60**	**6,600**	**5,400**	**4,900**	**4,500**	**3,600**	**NC**	**3,800**	**3,200**	**4,200**	**3,200**	**2,800**	**2,300**	NR	NR	**2,200**	NR
2TP-8	62.0	47.0	62.0	60	<1.0	60	<1.0	<1.0	<1.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0	<5.0	NR	<5.0	NR
2TP-9	55.0	40.0	55.0	48	1,200	48	920	720	810	890	920	NC	**930**	**820**	**940**	**760**	**690**	**570**	**450**	**240**	**220**	**270**
2TP-10[CS]	21.9	13.0	23.0	NC	NC	NC	NC	NC	NC	NC	50,000	NC	NC	NC	NC	NC	NC	NC	**68,000**	NR	**58,000**	NR
2TP-11[CS]	30.0	19.2	30.0	NC	NC	NC	NC	NC	NC	NC	3,200	NC	NC	NC	NC	NC	NC	NC	**5,400**	NR	**7,800**	NR
2TP-13	59.0	44.0	59.0	59	NSD	59	2.4	2.0	1.9	<2.0	<2.0	NC	<2.0	**0.7**	**0.5**	<1.0	<1.0	<1.0	**7.0**	NR	**10**	NR
2TP-14	58.0	43.0	58.0	40	18	40	14	10	9	5.4	4.6	NC	**4.4**	**3.6**	**3.1**	**2.0 J**	**3.0 J**	**4.0 J**	<5.0	NR	<5.0	NR
2MW-4	46.0	26.0	46.0	44	<1.0	44	<1.0	<1.0	2	6.1	8.7	NC	**10.0**	**9.4**	**13**	**11**	**14**	**16**	**22**	**20**	**30**	<5.0
2MW-5	68.0	53.0	68.0	61	240	61	180	130	120	76	69	NC	**66**	**47**	**53**	**45**	**42**	**35**	**35**	**29**	**32**	**28**
2MW-6	44.0	29.0	44.0	45	NSD	45	<1.0	<1.0	<1.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
2MW-12	34.9	19.9	34.9	NA	NA	NA	NA	NA	NA	NA	NC	890	NC	NC	NC	NC	NC	NC	**1,900**	NR	**2,000**	NR
2MW-13[CP]	11.0	3.0	11.0	NA	NA	NA	NA	NA	NA	NA	NC	8.1	NC	NC	NC	NC	NC	NC	**21**	NR	**9.0**	NR
S-2	50.0	20.0	50.0	46	100	46	54	29	24	4	10	NC	**9.4**	**7.4**	**5.7**	**5.0 J**	**5.0 J**	**3.0 J**	<5.0	<5.0	<5.0	<5.0
S-3	50.0	20.0	50.0	46	11	46	8	8	5	3.2	3.0	NC	**2.7**	**2.1**	**1.5**	**2.0 J**	**1.0 J**	**1.0 J**	<5.0	<5.0	<5.0	<5.0
S-4	50.0	20.0	50.0	45	880	45	NR	810	NR	530	NR	NC	**410**	NR	**330**	NR	**240**	NR	<5.0	NR	**280**	NR
Bedrock																						
2MW-8S	128.0	108.0	128.0	118	22,000	118	24,000	19,000	20,000	16,000	19,000	NC	**13,000**	**12,000**	**11,000**	**13,000**	**6,500**	**11,000**	**37,000**	**34,000 / 33,000**	**29,000 / 30,000**	**30,000 / 32,000**
2MW-9	93.0	73.0	93.0	83	<1.0	83	<1.0	<1.0	<1.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
2MW-11	120.0	100.0	120.0	110	190	110	190	180	170	160	130	NC	**140**	**110**	**130**	**160**	**120**	**90**	**11**	<5.0	<5.0	**15**
2MW-8D*	208.0	193.0	208.0	**200**	**180**	**200**	**160**	**150**	**140**	**130**	**120**	**NC**	**120**	**89**	**84**	**90**	**88**	**75**	NR	NR	**71**	NR
2MW-10D*	200.0	176.0	200.0	**188**	**<1.0**	**188**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**NC**	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0	NR	NR	<5.0	NR
HRD-1	140.0	120.0	140.0	130	2.8	130	2.2	1.3	1.1	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
B-5	140.0	54.0	140.0	95	560	95	460	360	300	190	160	NC	NS	**160 E**	**100**	**120**	**100**	**25**	**6.0**	**6.0**	**7.0**	**14**
Field Blank	-	-	-	-	11	-	11	13	12	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0

TABLE 3
Historical TCE Analytical Results for CMS Units 2 and 7 Groundwater Monitoring
Former Appliance Park East Facility, Columbia, Maryland

Well - Sample ID	Well Depth (ft BGS)	Well Screen (ft BGS) Top (ft BGS)	Well Screen (ft BGS) Bottom (ft BGS)	5/30/13 TCE (µg/L)	11/25/13 TCE (µg/L)	5/27/14 TCE (µg/L)	11/21/14 TCE (µg/L)	5/22/15 TCE (µg/L)	11/20/15 TCE (µg/L)	5/27/16 TCE (µg/L)	11/18/16 TCE (µg/L)	6/2/17 TCE (µg/L)	11/10/17 TCE (µg/L)	5/23/18 TCE (µg/L)	12/6/18 TCE (µg/L)	5/31/19 TCE (µg/L)	11/22/19 TCE (µg/L)	5/29/20 TCE (µg/L)	12/4/20 TCE (µg/L)	6/3/21 TCE (µg/L)	12/3/21 TCE (µg/L)
Saprolite / Water Table																					
7TP-1	24	4.0	24.0	NSD	NR	NSD	NR	NSD	NR	NR	NR	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry	Not sampled - well was dry
2TP-5*	63.0	48.0	63.0	NR	NR	**20,000**	NR	NR	NR	NR	**13,100**	NR	NR	**11,200**	NR	NR	NR	**7,210**	NR	NR	NR
2TP-6	50.0	35.0	50.0	NSD	NR	NSD	NR	<1.0	NR	NR	NR	**1.2**	NR	Not sampled - well was dry	NR	NS	Not sampled - well was dry	Not sampled- well was dry	Not sampled- well was dry	Not sampled- well was dry	Not sampled- well was dry
2TP-7*	59.0	44.0	59.0	NR	NR	**1,600**	NR	NR	NR	NR	**956**	NR	NR	**661**	NR	NR	NR	**617**	NR	NR	NR
2TP-8	62.0	47.0	62.0	<5.0	NR	<5.0	NR	<1.0	NR	NR	NR	<1.0	NR	<1.0	NR	<1.0	NR	<1.0	NR	<1.0	<1.0
2TP-9	55.0	40.0	55.0	**240**	**240**	**190**	**198**	**142**	**122**	**122**	**80.3**	**118**	**83.8**	**45.2**	NR**	**138**	NR	**43.9**	NR	**37.6**	NR
2TP-10[CS]	21.9	13.0	23.0	**53,000**	NR	**54,000**	NR	**55,300**	NR	**64,200**	NR	**78,500**	NR	**72,700**	NR	**107,000**	**116,000**	**107,000**	NR	**90,500**	**81,300**
2TP-11[CS]	30.0	19.2	30.0	**6,400**	NR	**7,000**	NR	**7,240**	NR	**8,150**	NR	**8,320**	NR	**6,970**	NR	**8,650**	NR	**8,830**	NR	**7,500**	NR
2TP-13	59.0	44.0	59.0	**10**	NR	**9.0**	NR	**8.9**	NR	NR	NR	**8.1**	NR	**6.0**	NR	**6.6**	NR	<1.0	NR	**6.6**	NR
2TP-14	58.0	43.0	58.0	<5.0	NR	<5.0	NR	**5.7**	NR	NR	NR	**3.1**	NR	**2.6**	NR	**3.3**	NR	**3.4**	NR	**3.1**	NR
2MW-4	46.0	26.0	46.0	**33**	**33**	**29**	**33**	**29.4**	**31.3**	**31.3**	**34**	**28.4**	**22.8**	**20.5**	**18.2**	**27**	**28.9**	**23.6**	**24.5**	**22.4**	**14**
2MW-5	68.0	53.0	68.0	**25**	**22**	**22**	**21.7**	**15.7**	**16**	**16**	**13.3**	**12.6**	**10.7**	**9.0**	**9.9**	**11.3**	**9.2**	**8.2**	**8.1 / 8.3**	**7.7**	**6.7**
2MW-6	44.0	29.0	44.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2MW-12	34.9	19.9	34.9	**1,200**	NR	**1,000**	NR	**292**	NR	NR	NR	**219**	NR	**184**	NR	**103**	NR	**94.5**	NR	**117**	NR
2MW-13[CP]	11.0	3.0	11.0	**13**	NR	**11**	NR	**11.8**	NR	NR	NR	**10**	NR	**7.5**	NR	**10.7**	NR	**10.9**	NR	**9.0**	NR
S-2	50.0	20.0	50.0	<5.0	<5.0	<5.0	**1.6**	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
S-3	50.0	20.0	50.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
S-4	50.0	20.0	50.0	**220**	NR	**150**	NR	**103**	NR	NR	NR	**91.7**	NR	**45.7**	NR	**91.6**	NR	**32.8**	NR	**32.6**	NR
Bedrock																					
2MW-8S	128.0	108.0	128.0	**28,000 / 30,000**	**23,000 / 23,000**	**18,000 / 18,000**	**14,700 / 16,800**	**14,700 / 13,600**	**13,300 / 13,300**	**13,300 / 13,300**	**10,600 / 11,500**	**10,600 / 9,160**	**9,150 / 8,040**	**4,090 / 4,040**	NR**	**3,700 / 3,090**	NR	**4,700 / 4,490**	NR	**5,520 / 4,540**	NR
2MW-9	93.0	73.0	93.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR**	<1.0	NR	<1.0	NR	<1.0	NR
2MW-11	120.0	100.0	120.0	**11**	**8.0**	**11**	**6.3**	**5.2**	**5.2**	**5.2**	**4.1**	**2.9**	**3.5**	**4.0**	NR**	**5.7**	NR	**3.2**	NR	**4.3**	NR
2MW-8D*	208.0	193.0	208.0	NR	NR	**53**	NR	NR	NR	NR	**34.7**	NR	NR	**28**	NR	NR	NR	**15.9**	NR	NR	NR
2MW-10D*	200.0	176.0	200.0	NR	NR	<5.0	NR	NR	NR	NR	<1.0	NR	NR	NS	<1.0	NR	NR	**6.6**	NR	NR	NR
HRD-1	140.0	120.0	140.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B-5	140.0	54.0	140.0	**6.0**	**9.0**	**9.0**	**10.2**	**6.0**	**7.4**	**7.4**	**5.9**	**5.9**	**5.1**	**5.2**	**7.2**	**2.5**	**7.0**	**9.5**	**9.5**	**4.3**	<1.0
Field Blank	-	-	-	<5.0	<5.0	<5.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**3.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.6**

NOTES:

bGS = Below ground surface
BGS = Below ground surface
[CS] Costal Plain & Saprolite
[CP] Coastal Plain/Perched Well
/ = Duplicate samples
TCE = Trichloroethene
NC = Not collected
NA = Not avaliable
NR = Not required for this sampling event
NS = Not sampled unable to retrieve passive bag sampler
NSD = Not sampled due to insufficient volume of water in well
< = result is less than or not detected at this limit of quantitation
MW-12, MW-13, 2TP-10, and 2TP-11 added to semi-annual sampling in June 2011
Starting in November 2009 samples analyzed using EPA Method 8260
* Well on biennial sampling frequency
Table presents concentrations from May 2008 to the present
** Well on annual sampling frequency per October 29, 2018 EPA approval.

ATTACHMENT 2

To Semi-Annual Project Progress Report
RCRA Corrective Action Permit
No. MDD046279311

General Electric Co.
Former Appliance Park East Facility
Columbia, MD

Period July 1, 2021 to December 31, 2021

Findings Summary for Warehouse Building Oil/Water Separator and Acid Neutralization Units RFI Unit 6

2204275051A.DWG

FIGURE 1
GROUNDWATER ELEVATION CONTOUR MAP
NOVEMBER 17, 2017
RFI UNIT #6
GE - FORMER APPLIANCE PARK EAST
COLUMBIA, MARYLAND

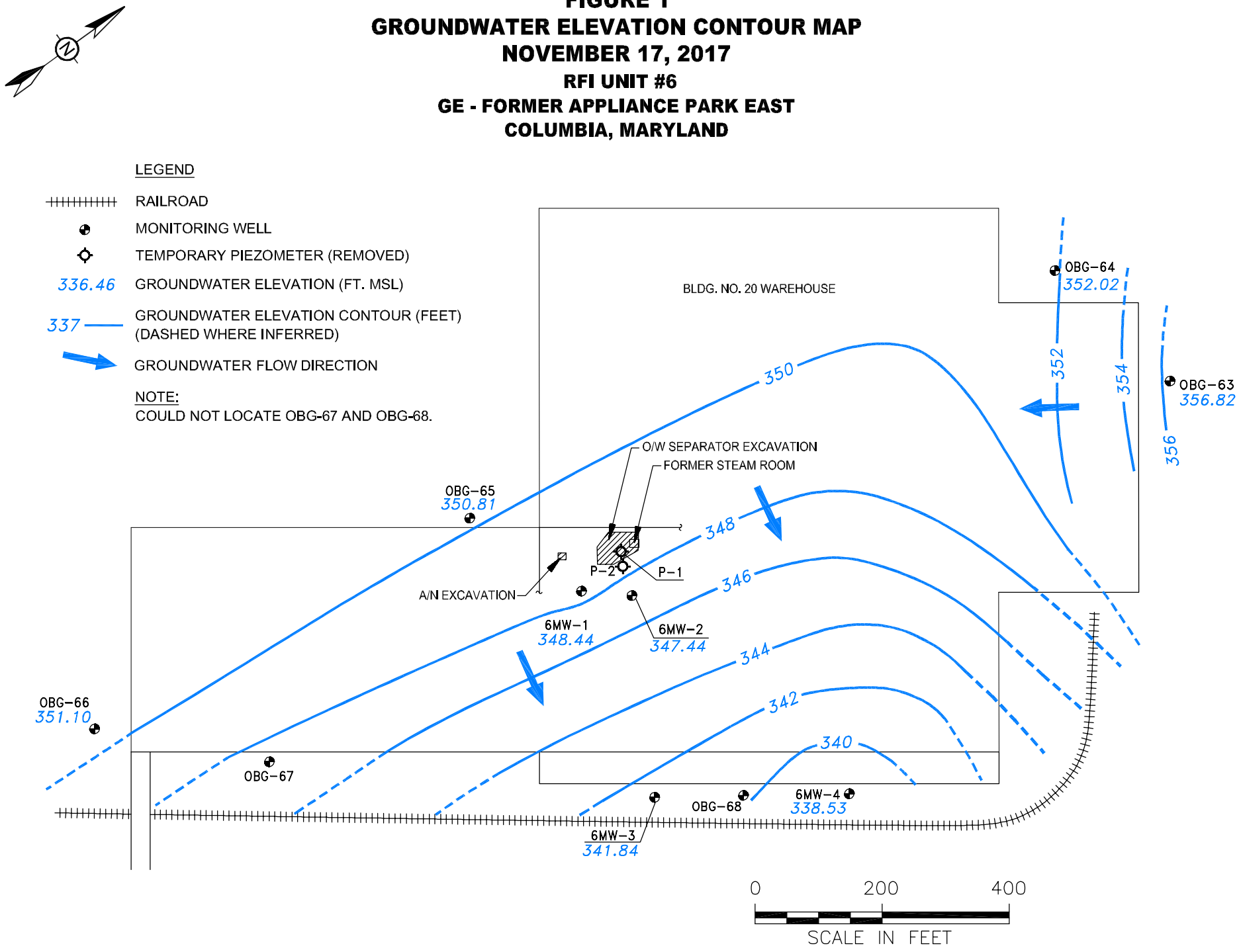


Table 1 Summary of Ground Water Elevations
RFI Unit 6
Former Appliance Park East, Columbia, Maryland

Date		17-Oct-94*		17-Jan-95*		18-Apr-95*		18-Jul-95*		16-May-02		14-Nov-07		29-Nov-12		17-Nov-17	
Well ID	Reference Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL
6MW-1	359.70	10.99	348.71	11.41	348.29	11.37	348.33	11.05	348.65	12.69	347.01	12.08	347.62	11.53	348.17	11.26	348.44
6MW-2	359.49	11.58	347.91	12.04	347.45	11.93	347.56	11.55	347.94	13.42	346.07	12.68	346.81	12.30	347.19	12.05	347.44
6MW-3	355.21	11.91	343.30	12.00	343.21	12.17	343.04	11.77	343.44	17.14	338.07	14.76	340.45	13.84	341.37	13.37	341.84
6MW-4	355.17	10.81	344.36	10.52	344.65	NM	--	10.59	344.58	15.83	339.34	16.55	338.62	16.86	338.31	16.64	338.53
OBG-63	361.58	9.61	351.97	8.33	353.25	9.22	352.36	9.35	352.23	5.60	355.98	5.61	355.97	4.86	356.72	4.76	356.82
OBG-64	362.40	11.33	351.07	10.52	351.88	11.01	351.39	11.00	351.40	11.51	350.89	11.99	350.41	11.35	351.05	10.38	352.02
OBG-65	362.61	11.97	350.64	11.83	350.78	12.30	350.31	12.12	350.49	13.33	349.28	13.41	349.20	12.50	350.11	11.80	350.81
OBG-66	361.99	11.81	350.18	12.57	349.42	12.42	349.57	11.95	350.04	13.54	348.45	13.37	348.62	11.59	350.40	10.89	351.10
OBG-67	355.05	5.44	349.61	5.55	349.50	5.38	349.67	4.36	350.69	6.69	348.36	NM	--	NM	--	NM	--
OBG-68	355.54	12.05	343.49	12.27	343.27	12.50	343.04	11.93	343.61	NM	--	NM	--	NM	--	NM	--

Notes:
* - Data presented in *Addendum to the RCRA Facility Investigation Report for RFI Unit 6,* dated 2 August 1995
Reference elevation for all wells is top of PVC casing
MSL - Mean Sea Level
NM - Not measured, well was inaccessible

Table 2 Detected Analytes for Ground Water Samples
RFI Unit 6
Former Appliance Park East, Columbia, Maryland

Sample Number			6-MW-1					6-MW-2					6-MW-3					OBG-65				
Sample Collection Date			8/22/94*	05/16/02	11/14/07	11/29/12	11/17/17	8/23/94*	05/16/02	11/14/07	11/29/12	11/17/17	8/23/94*	05/16/02	11/14/07	11/29/12	11/17/17	8/22/94*	05/16/02	11/14/07	11/29/12	11/17/17
Analyte	**HBN**	**PQL**																				
Field Parameters																						
pH (standard units)	--	--	6.9	6.4	5.9	6.3	6.4	6.3	6.2	6.7	6.0	6.1	6	6.6	6.8	6.7	6.8	6.2	6.4	6.2	6.0	6.0
Conductivity (mS/cm)	--	--	NA	0.169	0.238	0.116	0.147	NA	0.203	0.660	0.079	0.083	NA	0.771	0.616	0.298	0.321	NA	0.213	0.315	0.090	0.120
Temperature (^{0}C)	--	--	NA	19.8	17.4	19.1	20.0	NA	19.7	16.5	19.5	19.9	NA	16.7	16.6	17.7	17.8	NA	15.9	15.7	16.1	15.1
D.O. (mg/L)	--	--	NA	2.83	NA	NA	NA	NA	0.84	NA	NA	NA	NA	2.21	NA	NA	NA	NA	4.63	NA	NA	NA
Permit List 4 Volatiles (µg/L)																						
1,1-Dichloroethene	7	5	--	< 5	< 5	< 5	< 1	--	30	56	85	99.2	--	< 5	< 5	< 5	< 1	--	< 5	< 5	< 5	< 1
cis-1,2-Dichloroethene	--	5	NA	< 5	< 5	< 5	< 1	NA	82	89	97	65.6	NA	< 5	< 5	< 5	< 1	NA	< 5	< 5	< 5	< 1
1,2-Dichloroethene (total)	100	5	--	NA	NA	NA	NA	11	NA	NA	NA	NA	--	NA	NA	NA	NA	--	NA	NA	NA	NA
Trichloroethene	5	5	--	< 5	< 5	< 5	< 1	24	110	130	170	170	--	< 5	< 5	< 5	< 1	--	< 5	< 5	< 5	< 1
Benzene	5	5	--	< 5	< 5	< 5	< 1	2 J	< 5	< 5	< 5	< 1	--	< 5	< 5	< 5	< 1	--	< 5	< 5	< 5	< 1
Tetrachloroethene	5	5	--	< 5	< 5	< 5	< 1	--	6	18	44	75.9	--	< 5	< 5	< 5	< 1	--	< 5	< 5	< 5	< 1
Inorganic Parameters (µg/L)																						
Antimony	10	30	--	< 5	NA	NA	NA	--	< 5	NA	NA	NA	--	< 5	NA	NA	NA	--	< 5	NA	NA	NA
Chromium	100	10	2.2 J	< 3	NA	NA	NA	0.44 J	< 3	NA	NA	NA	--	< 3	NA	NA	NA	--	< 3	NA	NA	NA

Notes:
mg/L - milligrams per liter
µg/L - micrograms per liter
HBN - Health Based Number
PQL - Practical Quantitation Limit
* - Data presented in *RCRA Facility Investigation Report for RFI Unit 6,* dated 3 March 1995
< 5 or < 1 - Analyte not detected, value indicates detection limit
-- - Not detected.
NA - Not analyzed
J - Analyte present, result may not be accurate or precise
B - Not detected substantially above the level reported in laboratory or field blanks
d - Sample is a duplicate of 6-MW-2

Table 2 (cont.) Detected Analytes for Ground Water Samples
RFI Unit 6
Former Appliance Park East, Columbia, Maryland

	Sample Number		6-MW-4		OBG-67	OBG-68	6-MW-100[d]	6-MW-20[d]	6-MW-5[d]			6-FB-1		6-EB-1		6-TB-1		TB-1		
	Sample Collection Date		8/23/94*	05/16/02	8/23/94*	8/23/94*	8/23/94*	05/16/02	11/14/07	11/29/12	11/17/17	8/22/94*	05/16/02	8/22/94*	05/16/02	8/23/94*	05/16/02	11/14/07	11/29/12	11/17/17
Analyte	**HBN**	**PQL**																		
Field Parameters																				
pH (standard units)	--	--	5.4	6.2	6.8	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Conductivity (mS/cm)	--	--	NA	0.908	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature (^{o}C)	--	--	NA	16.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D.O. (mg/L)	--	--	NA	4.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Permit List 4 Volatiles (µg/L)																				
1,1-Dichloroethene	7	5	--	< 5	--	--	--	30	57	84	98.6	--	< 5	--	< 5	--	< 5	< 5	< 5	< 1
cis-1,2-Dichloroethene	--	5	NA	< 5	NA	NA	NA	83	95	96	66.1	NA	< 5	NA	< 5	NA	< 5	< 5	< 5	< 1
1,2-Dichloroethene (total)	100	5	--	NA	--	--	10	NA	NA	NA	NA	--	NA	--	NA	--	NA	NA	NA	NA
Trichloroethene	5	5	--	< 5	--	--	23	110	130	170	170	--	< 5	--	< 5	--	< 5	< 5	< 5	< 1
Benzene	5	5	--	< 5	--	--	2 J	< 5	< 5	< 5	< 1	--	< 5	--	< 5	--	< 5	< 5	< 5	< 1
Tetrachloroethene	5	5	--	< 5	--	--	--	6	17	45	75.2	--	< 5	--	< 5	--	< 5	< 5	< 5	< 1
Inorganic Parameters (µg/L)																				
Antimony	10	30	--	< 5	2.3	--	--	< 5	NA	NA	NA	--	< 5	--	< 5	--	< 5	NA	NA	NA
Chromium	100	10	2 J	< 3	7.9	3.8 B	--	< 3	NA	NA	NA	1	< 3	--	< 3	--	< 3	NA	NA	NA

Notes:
mg/L - milligrams per liter
µg/L - micrograms per liter
HBN - Health Based Number
PQL - Practical Quantitation Limit
* - Data presented in *RCRA Facility Investigation Report for RFI Unit 6,* dated 3 March 1995
< 5 or < 1- Analyte not detected, value indicates detection limit
-- - Not detected, detection limit not available
NA - Not analyzed
J - Analyte present, result may not be accurate or precise
B - Not detected substantially above the level reported in laboratory or field blanks
d - Sample is a duplicate of 6-MW-2

ATTACHMENT 3

To Semi-Annual Project Progress Report
RCRA Corrective Action Permit
No. MDD046279311

General Electric Co.
Former Appliance Park East Facility
Columbia, MD

Period July 1, 2021 to December 31, 2021

Annual Institutional Control Monitoring Report

TETRA TECH

January 14, 2022

John Hopkins
Remedial Project Manager
Land and Chemicals Division
USEPA Region III
1650 Arch Street (3LC10)
Philadelphia, PA 19103

RE: Annual Institutional Controls Monitoring Report - 2021
RCRA Corrective Action Permit MDD046279311
Former Appliance Park East Facility, Columbia, MD

Dear Mr. Hopkins:

On behalf of the General Electric Company (GE), this letter presents the annual institutional controls monitoring report for 2021 for the above-referenced facility. This report is being submitted in accordance with Part II.B.3 of RCRA Corrective Action Permit MDD04627931 (Permit) and associated *Institutional Control Plan, Former Appliance Park East, Columbia, Maryland* (IC Plan) dated January 24, 2013 and approved in United States Environmental Protection Agency (EPA) letter dated February 5, 2013. An environmental covenant (EC) was executed and recorded for Parcel A-8 in 2016; ECs for parcels A-10 and A-15 were executed and recorded in 2021. The attached **Figure 1** shows the location of the referenced parcels and areas covered in the IC Plan.

Monitoring of the institutional controls was conducted by review of governmental controls specified in the IC Plan and windshield survey. The details are as follows.

Governmental Controls

1. Reviewed Howard County zoning ordinances and verified that they remain in place; the subject parcels are zoned M-1 (light manufacturing) as shown on the attached zoning map (see map grid #42).

2. Reviewed Howard County water supply ordinance and verified that the requirement to connect to municipal water remains in effect; see attached ordinance copy and following link: https://library.municode.com/md/howard_county/codes/code_of_ordinances?nodeId=HOCOCO_TIT3BU_SUBTITLE_9INPOWASUSY_S3.908COPUWASYRE. The public water supply map on the following Howard County Public Works website confirms that the subject areas are connected to the municipal water system: https://www.howardcountymd.gov/Departments/Public-Works/Bureau-Of-Utilities/Customer-Service-Division/Howard-County-Public-Water-Supply-Sources

TETRA TECH
980 Awald Road, Suite 302, Annapolis, MD 21403
Tel 410.990.4607 Fax 410.990.4749 www.tetratech.com

3. Searched the Maryland Department of Environment (MDE) Permit Application Database and verified that permits were not issued for new ground water supply wells within the areas subject to this IC Plan; as you will see in the attached MDE database search results the only permit applications for the subject areas found are the APE water appropriation permit application from 2011, the APE NPDES permit renewal application submitted in 2017, and APE Controlled Hazardous Substances permit renewal application submitted in 2018. The MDE Permit Application Database available at: https://mde.maryland.gov/programs/Permits/Pages/SB47.aspx

Windshield Survey

A windshield survey/site visit was conducted on December 29, 2021 to observe any potential non-compliance with the governmental controls. Non-compliance was not observed. A copy of the inspection checklist completed during the windshield survey is attached.

In summary, the windshield survey observations and review of the referenced governmental controls confirm compliance with the IC Plan.

Please contact me at 410-990-4607 or belssi.changlee@tetratech.com if you require additional information or have any questions.

Sincerely,

Belssi Chang Lee
Project Manager

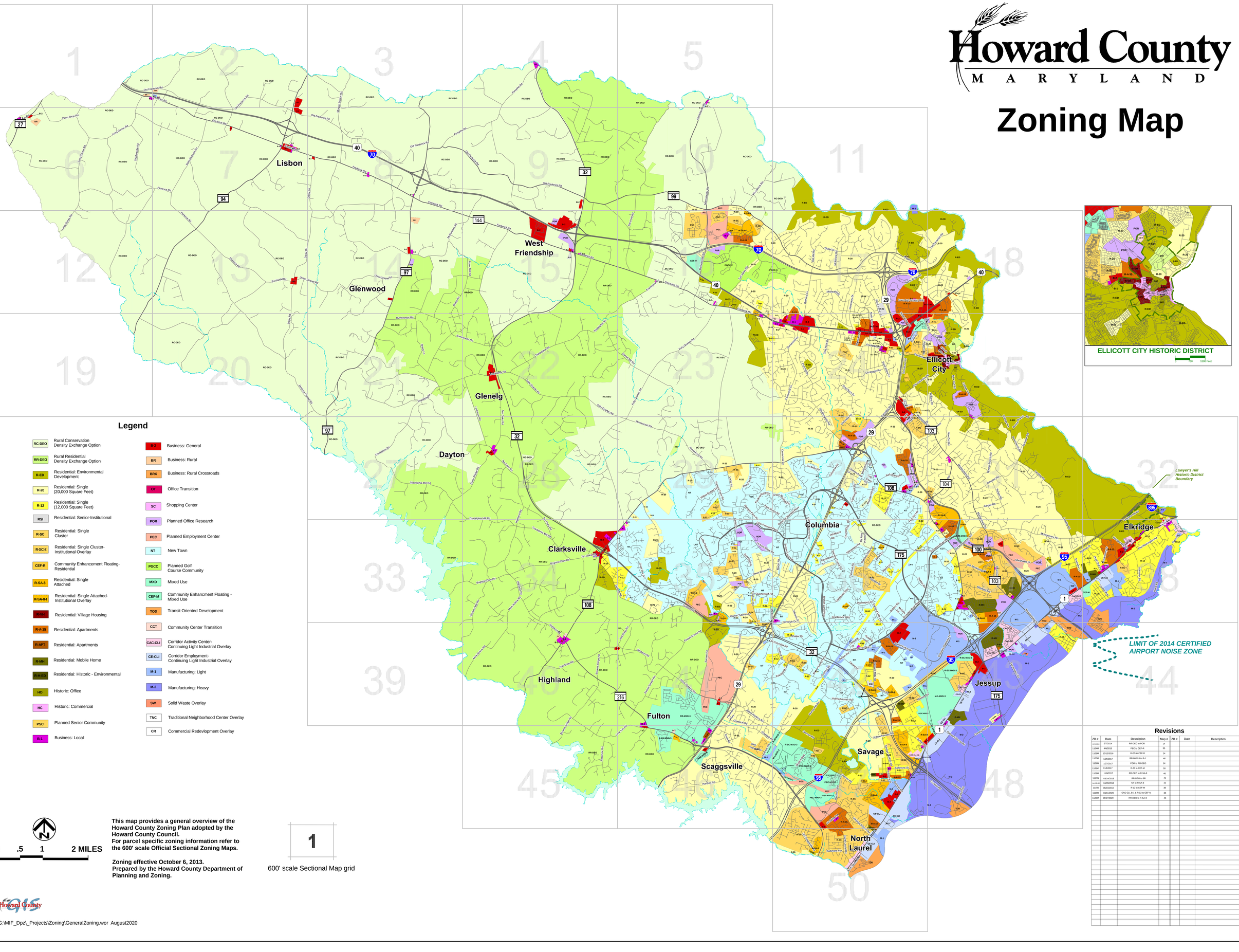
Cc: Kevin Mooney, GE

Attachments: Howard County Zoning Map, August 2020 version
Howard County Water Supply Ordinance, November 2020 version
MDE Permit Application Database Search Results, January 14, 2022
Windshield Survey Inspection Checklist, December 29, 2021

ATTACHMENTS

Howard County MARYLAND

Zoning Map



Legend

RC-DEO	Rural Conservation Density Exchange Option	B-2	Business: General
RR-DEO	Rural Residential Density Exchange Option	BR	Business: Rural
R-ED	Residential: Environmental Development	BRX	Business: Rural Crossroads
R-20	Residential: Single (20,000 Square Feet)	OT	Office Transition
R-12	Residential: Single (12,000 Square Feet)	SC	Shopping Center
RSI	Residential: Senior-Institutional	POR	Planned Office Research
R-SC	Residential: Single Cluster	PEC	Planned Employment Center
R-SC-I	Residential: Single Cluster-Institutional Overlay	NT	New Town
CEF-R	Community Enhancement Floating-Residential	PGCC	Planned Golf Course Community
R-SA-8	Residential: Single Attached	MXD	Mixed Use
R-SA-8-I	Residential: Single Attached-Institutional Overlay	CEF-M	Community Enhancement Floating - Mixed Use
R-VH	Residential: Village Housing	TOD	Transit Oriented Development
R-A-15	Residential: Apartments	CCT	Community Center Transition
R-APT	Residential: Apartments	CAC-CLI	Corridor Activity Center-Continuing Light Industrial Overlay
R-MH	Residential: Mobile Home	CE-CLI	Corridor Employment-Continuing Light Industrial Overlay
R-H-ED	Residential: Historic - Environmental	M-1	Manufacturing: Light
HO	Historic: Office	M-2	Manufacturing: Heavy
HC	Historic: Commercial	SW	Solid Waste Overlay
PSC	Planned Senior Community	TNC	Traditional Neighborhood Center Overlay
B-1	Business: Local	CR	Commercial Redevlopment Overlay

0 .5 1 2 MILES

This map provides a general overview of the Howard County Zoning Plan adopted by the Howard County Council.
For parcel specific zoning information refer to the 600' scale Official Sectional Zoning Maps.

Zoning effective October 6, 2013.
Prepared by the Howard County Department of Planning and Zoning.

1

600' scale Sectional Map grid

Revisions

ZB #	Date	Description	Map #	ZB #	Date	Description	Map #
voluntary	8/7/2014	RR-DEO to POR	14				
1104M	4/6/2015	PEC to CEF-R	35				
1106M	10/13/2016	R-ED to CEF-R	24				
1107M	1/26/2017	RR-MXD-3 to R-1	46				
1108M	1/27/2017	POR to RR-DEO	14				
1109M	11/6/2017	R-20 to CEF-M	16				
1110M	11/6/2017	RR-DEO to R-SA-8	46				
1117M	03/14/2018	RR-DEO to BR	41				
NA 18-01	04/09/2018	NT to R-SA-8	42				
1115M	08/04/2018	R-12 to CEF-M	36				
1118M	03/11/2020	CAC-CLI, B-1 & R-12 to CEF-M	38				
1122M	08/17/2020	RR-DEO to R-SA-8	46				

Howard County GIS

G:\MIF_Dpz_Projects\Zoning\GeneralZoning.wor August2020

TAGS

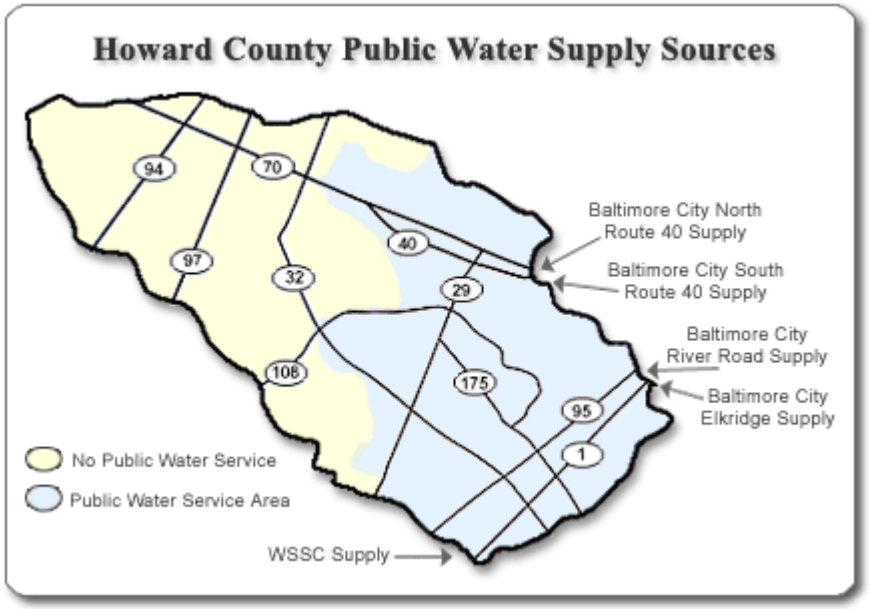
Water

Howard County Public Water Supply Sources

If you live in the North Laurel area, east of Interstate 95 and south of Patuxent Range Road, your water comes from the Washington Suburban Sanitary Commission (WSSC) in Laurel.

If you live anywhere else in Howard County and are connected to public water, your water comes from Baltimore City.

Howard County purchases water from Baltimore City and WSSC.



Sec. 3.908. - Connection to public water system required.

(a) *Public Water Connection.* Except for property located outside the planned service area for water service and the Metropolitan District, wherever a water main for public use exists in any street or alley and directly abuts the property, the owner of all buildings constructed for human habitation, occupancy, or use shall connect to the public water main.

(b) *Wells Prohibited.* A well for potable use shall not be constructed on a property accessible to an adequate public water supply.

(Ord. No. 81, 2006, § 1)

MDE Permit Application Database Search

http://www.mde.state.md.us/programs/Permits/Pages/SB47.aspx

Accessed 01/14/2022

NameofProposedActivityifDifferentFromApplicantName	StreetAddressofProposedActivity	CityofProposedActivity	CountyofProposedActivity	ZipCodeofProposedActivity	ApplicantName	Applicant StreetAddress	ApplicantCity	ApplicantZip Code	TypeofPermitandApplicableStatutes	MDEContactInformation	Comments	DeadlineforRequestingInformationalMeeting	DeadlineforRequestingPublicHearing	DeadlineforRequestingContestedCaseHearing	Status	Admin	Tetra Tech Comments
General Electric Co.	8700 Robert Fulton Dr.	Columbia	Howard	21046	General Electric Co.	319 Great Oaks Blvd.	Albany	12203	3.01 Surface Water Discharge Permit (Industrial) - FEDERAL: Clean Water Act; STATE: Environment Article, Title 9, Subtitle 3; COMAR 26.08.01 through 26.08.04 and COMAR 26.08.08	3.01 Surface Water Discharge Permit (Industrial); Michael Richardson, Chief, Industrial & General Permits Division, 410-537-3323, Michael.Richardson@Maryland.gov:		05/03/2012	6//7/2013	Deadline Not Scheduled	**Permit Issued**	Water Management Administration (WMA)	APE Water Appropriation Permit
Former Appliance Park East Facility	Parcel A-10, 8700 Block of Robert Fulton Drive	Columbia	Howard	21046	General Electric Company	159 Plastics Avenue	Pittsfield	01201	3.01 Surface Water Discharge Permit (Industrial) - FEDERAL: Clean Water Act; STATE: Environment Article, Title 9, Subtitle 3; COMAR 26.08.01 through 26.08.04 and COMAR 26.08.08	3.01 Surface Water Discharge Permit (Industrial); Michael Richardson, Chief, Industrial & General Permits Division, 410-537-3323, Michael.Richardson@Maryland.gov			12/1/2021	N/A	**Tentative Determination Made**	Water Management Administration (WMA)	APE NPDES Permit Renewal Application
Former Appliance Park East	Robert Fulton Drive	Columbia	Howard	21046	General Electric Co.	1 Plastics Avenue	Pittsfield	01201	2.15 Controlled Hazardous Substances Facility Permit - FEDERAL: RCRA Subtitle C; STATE: Environment Article, Title 7, Subtitle 2; COMAR 26.13.07	2.15 Controlled Hazardous Substances Facility Permit; Ed Hammerberg, 410-537-3314,ed.hammerberg@maryland.gov	Application for renewal of a post-closure permit for the continuing post-closure care of three disposal areas that were closed in 1987.	Deadline Not Scheduled	Deadline Not Scheduled	Deadline Not Scheduled	**Application Received**	Land Management Administration (LMA)	**APE CHS Renewal Permit issued; effective 11/29/2021 expires 11/29/2031**
W.R. Grace & Co.	7500 Grace Dr.	Columbia	Howard	21044	W.R. Grace	7500 Grace Dr.	Columbia	21044	3.01 Surface Water Discharge Permit (Industrial) - FEDERAL: Clean Water Act; STATE: Environment Article, Title 9, Subtitle 3; COMAR 26.08.01 through 26.08.04 and COMAR 26.08.08	Michael Richardson, Chief, Industrial Permits Division, 410-537-3654, michael.richardson@maryland.gov		12/17/2015	Deadline Not Scheduled	Deadline Not Scheduled	**Application Received**	Water Management Administration (WMA)	Not in immediate vicinity of APE site
Howard County General Hospital	5755 Cedar Lane	Columbia	Howard	21044	Howard County General Hospital	5755 Cedar Lane	Columbia	21044	1.02 Air Quality Permit to Construct - FEDERAL: Clean Air Act, Section 110 and Title V, 42 U.S.C. 7401 et seq.; STATE: Environment Article, Title 2, Subtitle 4; COMAR 26.11.02.21	1.02 Air Quality Permit to Construct; Justin Hsu, 410-537-3846, justin.hsu@maryland.gov, Bill Paul, 410-537-3230, bill.paul@maryland.gov	HB95	Deadline Not Scheduled	Deadline Not Scheduled	Deadline Not Scheduled		Air & Radiation Management Administration (ARMA)	Not in immediate vicinity of APE site
Walnut Creek Subdivision	8270 Old Montgomery Road	Columbia	Howard	21045	Howard County Dept. of Public Works	8270 Old Montgomery Road	Columbia	21045	3.05 Groundwater Discharge Permit (Municipal) - FEDERAL: 40 CFR Part 144; STATE: Environment Article, Title 9, Subtitle 3; COMAR 26.08.01 through 26.08.04 and 26.08.07	3.05 Groundwater Discharge Permit (Municipal); Ching-Tzone Tien, 410-537-3662, ching-tzone.tien@maryland.gov			07/10/2019	N/A	**Permit Issued**	Water Management Administration (WMA)	Not in immediate vicinity of APE site
Western Regional Park	14700-15036 Carrs Mill Road	Columbia	Howard	21723	Howard County Dept. of Public Works	9250 Bendix Road	Columbia		3.05 Groundwater Discharge Permit (Municipal) - FEDERAL: 40 CFR Part 144; STATE: Environment Article, Title 9, Subtitle 3; COMAR 26.08.01 through 26.08.04 and 26.08.07	3.05 Groundwater Discharge Permit (Municipal); Ching-Tzone Tien, 410-537-3662, ching-tzone.tien@maryland.gov			05/26/2021	N/A	**Tentative Determination Made**	Water Management Administration (WMA)	Not in immediate vicinity of APE site

Institutional Control Windshield Inspection
Former Appliance Park East, Columbia, MD

Windshield Inspect. Completed by: Belssi Chang Lee **Windshield Inspection Date:** 29-Dec-21

Parcel	A10	A40	A74	A8 Partial[2]	A15 Partial[2]
Owner	The Howard Research And Development Corporation	Gateway Owner A 40 LLC c/o RREEF Dept 207 Prop Tax	Gateway A 74 & A 76 LLC c/o RREEF Dept 207 Property Tax	General Electric Company	The Howard Research And Development Corporation GEAPE LAND HOLDINGS II INC
Address	N. Robert Fulton Drive	8700 Robert Fulton drive	8901 Snowden River Parkway	S. Snowden River Parkway	NW Samuel Morse Drive
Deed Reference	Tax Parcel 0042-0006-0513 A 10, Deed 7940/532, Plat 18973	Tax Parcel 0042-0006-0513 A 40, Deed 8878/180, Plat 12120	Tax Parcel 0042-0006-0513 A 74, Deed 8878/214, Plat 13139	Tax Parcel 0043-0001-0587 A 8, Deed 511/001, Plat 9619	Tax Parcel 0042-0012-0671 15, Deed 7940/532, Plat 18307
Institutional Control					
Residential[1] land use prohibition compliance (Yes/No & Comment)					
Single family homes, multiple family dwellings, apartment buildings	**No**	**No**	**No**	**No**	**No**
Dormitories, other residential-style facilities	**No**	**No**	**No**	**No**	**No**
Schools, day care centers, child care centers	**No**	**No**	**No**	**No**	**No**
Hospitals and inpatient care facilities	**No**	**No**	**No**	**No**	**No**
Groundwater use prohibition compliance (Yes/No & Comment)					
Observations related to groundwater wells if visible from windshield inspection	**Yes - groundwater monitoring wells**	**Yes - groundwater monitoring wells**	**No**	**No**	**No**
Subsurface soil excavation restriction[3] compliance (Yes/No & Comment)					
Soil excavation below water table	**No**	**No**		**No**	**No**
Soil excavation below water table under building			**No**		
Soil excavation below perched water table at ETT[4]		**No**			
Floor penetration at Press Pit[5]		**No per Curt Lebak email (Jan-14-22)**			

1. Residential land use defined as single family homes, multiple family dwellings, schools, day care centers, child care centers, apartment buildings, dormitories, other residential-style facilities, hospitals, and inpatient care facilities
2. Portion of Parcels A8 and A15 that overlap with the ground water impacts associated with Corrective Measures Study (CMS) Unit 4 (Underground Storage Tank [UST] #9)
3. Excavation prohibited except in conformance with a soil management plan ("SMP") reviewed and approved in advance by EPA
4. Outside of the former Range Building in the former Exterior TCE Tank (ETT) area at Parcel A40
5. Concrete floor of the western wing of the Press Pit in the former Range Building on Parcel A40